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ABSTRACT

Research on the problem of work disincentives as a factor in the rehabilitation of disabled individuals is the focus of the book. The first two chapters define the problem by identifying the four basic assumptions which have created program conflicts and discuss programs currently available. Chapters 3 and 4 examine the labor supply theory and present findings of studies, such as the Alabama Incentive study, as well as explore the effectiveness of the Beneficiary Rehabilitation Program. The final two chapters consider solutions to disincentives and conclusions from the research reported. It was concluded that, among other things, better management of current programs is needed and new guidelines for the basis of benefits need to be drawn. A 63 item bibliography is appended. (PHF)

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WORK DISINCENTIVES AND REHABILITATION

Monroe Berkowitz

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Abstract

Work Disincentives and Rehabilitation addresses the public policy dilemma involved in the rehabilitation of disabled persons who receive benefits from federal income maintenance and health and welfare programs. The dilemma stems from the conflicting rationales which underlie programs designed to assist disabled people. Programs like Social Security Disability Insurance (DI) and Supplemental Security Income (SSI) were established to provide an adequate system of benefits (cash, medical services, and various in-kind services) to those who are determined unable to work because of a physical or mental impairment. On the other hand, it has been a matter of public policy to encourage the rehabilitation of disabled recipients in programs like DI through additional legal provisions which require them to participate in vocational rehabilitation programs. The Beneficiary Rehabilitation Program (BRP) is a prime example.

In effect, we are telling disabled people that they must be permanently and totally disabled in order to qualify for income support and needed medical services which they otherwise could not afford. On the other hand, we are saying that in order to continue to receive benefits they must participate in rehabilitation programs which are supposed to lead to re-entry into the labor force, and thus a status of "able-bodied" for purposes of benefit eligibility. Thus the individual disabled recipient who wishes to attempt to return to work is faced with what appears to be a no-win situation.

Recognizing the need to provide disabled workers with an adequate income and necessary support services, Congress has expanded eligibility requirements and increased benefit payments in order to keep up with inflationary forces. At the same time, the percentage of beneficiaries who enter and successfully complete a rehabilitation program leading to competitive employment, and termination from the benefit rolls, has declined, despite increased federal expenditures for rehabilitation of disabled recipients.

This situation places an even greater strain on an already overburdened social security trust fund and growing budget deficits. Legislators and executive branch policy makers are faced with the task of structuring equitable programs which meet the human survival needs of disabled individuals within limited budgetary constraints.

What can be done to minimize the problem of work disincentives so that we can help resolve this dilemma? The research that has been done in this area is examined in this book. Chapters I and II identify the general parameters of the problem by discussing the underlying assumptions which have created program conflicts. A brief description of the current programs available to assist disabled workers is contained in Chapter II. Chapters III and IV survey the research findings relative to labor force participation of social welfare beneficiaries in general and disabled recipients in particular. Preliminary findings of two recent studies by the Alabama and West Virginia Research and Training (R&T) Centers are reported. Research studies have also explored the effectiveness of the BRP and adjustments in the level of substantial gainful activity restrictions on beneficiary earnings.

The book goes on to draw some conclusions regarding reforms in disability beneficiary programs and the vocational rehabilitation process and relates these conclusions to currently proposed legislative and administrative solutions such as HR 3236, the Pickle Bill.

In the final analysis, there is no one single solution to the problem of work disincentives, but we have enough evidence with which we can make some short term reforms.

Contents

About the Author
Abstract

Chapter I
Disincentives and the
Rehabilitation of Disabled Persons

Introduction 1
Four Assumptions 3
Research on the Disincentive Issue 7
The Plan of this Paper 7

Chapter II
The Benefit System and
Vocational Rehabilitation

Workers' Disability Income System 9
Disincentives—A Preliminary Look 12
Benefits In Kind 12
Coordination Problems 14
The Vocational Rehabilitation Program 16

Chapter III
Labor Supply and
Disincentive Effects

Labor Supply Theory 19
Empirical Studies 20
Negative Income Tax Experiment 22
Cross-Sectional Studies Using Non-Experimental Data 24

Chapter IV
Research Studies on
Disincentives Effects in Rehabilitation

Introduction 27
The West Virginia Studies 27
The Alabama Incentive Study 29
The Beneficiary Rehabilitation Program 31
Statistical trends of the BRP 31
Evaluations of the Program 32
Correlates of success revisited 34

Disincentives and the SGA limit 40
Partial disability and the notch effect 41
Trial work periods and replacement rate 42
Conclusions 42
GAO Report on the SSI Program 43
Effect of Substantial Gainful Activity Level on Disabled Beneficiary Work Patterns—A Further Look 43
The Disability Beneficiary Studies 44
OMB and CBO Analyses 44
The Treitel Study 45

Chapter V
Solutions to Disincentives

Introduction 53
Benefit Programs 54
Trial Work Period 54
Medicare Eligibility 54
SGA Levels 55
Cap on Benefits 56
Reduction in Number of Drop-Out Years 58
Administration of the DI Benefit Program 60
Improving the Management of the BRP 62
Disincentives in Programs Other Than DI—General Welfare Reform 63

Chapter VI
Conclusions

The Same and Yet Different 67
Selecting Those Who Will Terminate 67
Far But Not Far Enough 67
Not One But Many Programs 67
Incentives and the Negative Income Tax for the Disabled 68
Managing the BRP 68
Changing the Basis of Benefits 69
A Better Definition of Net Income—Deducting Disability Expenses 69
For the Here and Now 70
More Research Not Necessary 70
A Firmer Resolve 70
Notes
Bibliography

Chapter I

Disincentives and the Rehabilitation of Disabled Persons

Introduction

To the rehabilitation counselor, the disincentives problem arises when a client is reluctant to take a job in fear of loss of his Social Security Disability Insurance (DI) benefits. To the legislator concerned with rising costs for social security, the disincentive issue is one possible explanation for the decreasing number of people leaving the benefit rolls. To the disabled person and to spokespersons for their organizations, the disincentive issue could be minimized if people could only be allowed to work without losing their benefits—at least for a while.

Kosmo and Pritchard present case studies illustrating something of the dynamic nature of the process. David T. was a 51 year old male who had to discontinue his machinist work because of arteriosclerosis and a cardiac condition. He received $417.80 a month tax free as DI benefits. (He received the maximum family benefit since he was married with eight children). He entered the vocational rehabilitation program and was successful enough to be offered a job at a veterans hospital at a GS 3 level. He discovered that, unlike the DI benefits, his salary would not be tax free. In addition, a portion of it would be withheld to pay for his pension, and he would have to pay 60 percent of his medical insurance. His total take-home pay would have been considerably less than his DI benefits (Kosmo and Pritchard).

What is interesting about the case of David T. is that if he could work for two years in the job he could have potentially moved to a GS 6 level which would have paid him more than his DI benefits. If he were able to keep a part of the DI benefits for two years, he could have become gainfully employed and self-supporting.

John P. is a 29 year old male, disabled by hereditary nephritis and a minor hearing loss. John is divorced, with one child, whom he is supporting with financial assistance of $100 per month from DI benefits. He completed a training course and was in the process of trying to secure a job. He was informed by the hospital social services department that if he were to start working, he would have to contribute at least $500 per year towards his dialysis. (He was spending 20 hours per week on dialysis.) His support payments for his child would also increase from $1,200 per year to some higher level depending on his earnings.

He becomes ill from time to time, and he would have the full responsibility for his medical bills and necessary medication. John discussed the matter with the Social Security Administration (SSA) office, but they informed him that once he started working his benefits would be discontinued.

Roberta K. is a 21 year old post-polio paraplegic who was married until recently to another Division of Vocational Rehabilitation (DVR) client who receives DI benefits. Roberta receives a minimal Supplemental Security Income (SSI) benefits on her own determination and is eligible for medical assistance. Her medical needs including bills are approximately $1,800 annually. The couple received food stamps. She began to do some work at the University of Wisconsin as a typist, receiving $2.74 an hour for 30-40 hours per week. She was not eligible for health insurance

but was able to purchase a minimal coverage policy available at $19 per month through the state. She was able to arrange daily transportation through Madison's accessible buses at $2 per day. She was notified that her SSI check would be terminated due to the increase in family income, and that she and her husband would no longer be eligible for medical assistance. Although the DVR gave her assurance of assistance with transportation and some medical costs, she still terminated her employment. Her decision was primarily due to the potential loss of medical benefits; her insurance provided only minimal benefits.

Roberta's monthly financial situation can be demonstrated as follows: her net earnings would have been $322, her SSI loss $80, increased transportation costs $42, insurance $19, medical costs $150 for a total of $291 with a net gain of $31. She is not currently ready to consider employment; although she was an excellent employee and there is every expectation that she could be successfully employed if the problem concerning medical benefits, and/or considerably higher wages could be solved.

More case studies could be presented which reveal the problems posed by the system of disability benefits which condition receipt on abstaining from work. The problem, however, cannot be understood in terms of case studies alone. There are simply too many cases and each case tells us a different story.

Our social legislation is a product of deeply held beliefs and values. One such belief centers around the virtues of productive work. A fundamental precept of our economic system is that participants in the economic process should be rewarded in accordance with their contribution to that process; we are often reminded of the absence of free lunches. At the same time, society also holds dear the fundamental value that its goods should be distributed so that the less fortunate are insured at least some minimally adequate standard of living. Persons who have worked all of their lives should be guaranteed some standard of support which is keyed to the wages they earned while they were working.

But it is not uncommon for fundamental values to be in conflict—often with tragic results (Calabresi and Bobbit, 1978). We live in a world of limited resources and must cope with that harsh fact. We seek to maintain a comprehensive, generous system of benefits for disabled persons, but as we try to maintain this level, we discover that those we seek to encourage to work can find few jobs which pay net wages comparable to the benefit levels. Under such conditions, it will not be easy for society to find ways to resolve the dilemma and maintain allegiance to its divergent values.

The purpose of this paper is to bring together what is known about the general subject of disincentives to the rehabilitation of disabled persons and to explore the policy alternatives which may ease the disincentive problem. Amendments to existing benefit and vocational rehabilitation legislation designed to improve the incentives for disabled people to work have been proposed. One of our tasks will be to examine these proposals in light of what we know about the disincentives problem.

As indicated above, our approach is that the problem will not yield to simple solutions. That belief is based on the assumption that there are no obvious defects, either in the benefit legislation or the vocational rehabilitation legislation, which once remedied, will solve the problem. The most that can be hoped for is some amelioration of the problem. The benefits to be derived from particular administrative and legislative changes must be compared

to the costs of making these changes.

We should not lose sight of the trade-off nature of the solutions to the problems of disincentives. For example, it is relatively easy to eliminate all disincentives to rehabilitation by eliminating all cash and in-kind benefit programs. Obviously, such a move would solve the problem of disincentives, but would increase human misery among those who are impaired and probably make such a solution unthinkable. At the other extreme, it is possible to solve the problem of disincentives by allowing those persons who have qualified for benefit programs to continue to receive benefits, regardless of their future work status. Such a move would cure the problem of disincentives for those who are already on the rolls, but would create disincentive problems for those who are nondisabled, and hence would be equally unpalatable.

To say that there are no complete solutions to the problems is not to say that we must accept the present situation. There is no lack of proposals that have been made to help solve the disincentive problem and the time may be ripe to do something about it. An examination of the problem and the proposed remedies should be helpful to those concerned with the public policy in this area.

Four Assumptions

One way to look at the problem is to set forth four basic propositions:

a. The purpose of the vocational rehabilitation program is to prepare disabled persons for work.
b. The purpose of work is to acquire income.
c. Benefit programs provide income to disabled persons only if they do not work.
d. Thus, benefit programs cause disabled persons to refrain from the preparation for work provided by vocational rehabilitation.

Reduced to the simplest terms, these four propositions are the basis of the concern about disincentives in rehabilitation. We explore each of these further.

The purpose of vocational rehabilitation is to prepare disabled individuals for work: The Vocational Rehabilitation Act of 1973 mandated vocational rehabilitation agencies to give priority to severely handicapped individuals. Obviously, the more severely handicapped the person is, the more difficult it will be to place that person in the labor market. Nonetheless, the objective of the basic Act remains the same; to prepare as many disabled individuals as possible for gainful work. Rehabilitation to an independent living status, to work at home, to placement in a sheltered workshop, or other employment in the noncompetitive labor market may be the objective in certain cases, but the basic rationale for the program of vocational rehabilitation (VR) is to restore to work those persons who are unable to work by reason of mental or physical disability. For the most part, there must be some reasonable expectation of this outcome if the client is selected for services.

That has been the traditional posture of the program, and it remains the principal objective of the special vocational rehabilitation programs for those who receive benefits from the SSDI program or from the SSI program. Inasmuch as these are the people for whom the disincentive issue is most relevant, it can be concluded that the fundamental purpose of the provision of vocational rehabilitation services is to prepare people to enter the competitive labor market. Simply improving the independent living skills of a client will not result in his losing any work conditioned benefits.

As we discuss disincentive effects in this paper, we concentrate on those effects which interfere with the objective of returning a person to a job in the open competitive labor market. We assume that this is the basic reason for providing vocational rehabilitation services, and that the obstacles to becoming a VR client, or to completing a VR program, are the same ones that prevent employment.

The purpose of work is to acquire income: There are many reasons other than money which prompt people to seek work. Work may be necessary for an appropriate self-image in our society. It may also have some therapeutic value. Many people would seek to engage in work even if it did not pay a salary. Nonetheless, we make the assumption that the purpose of work is to acquire an income. The reason is quite simple and has relatively little to do with the "work ethic" or the traditional role of work in our society, our Puritan background, or our cultural heritage. It is simply that income is necessary to buy the goods and services to sustain life, and there are only three ways to receive income under our institutional arrangements. One is to work for it, another is to receive income from assets, and the third is to have someone transfer funds to you. Some people have acquired assets which produce sufficient income so that they no longer choose to work. That is particularly true of older people who have put in a lifetime of work and have retired to enjoy the fruits of their past labor. Other people are yet too young to work and are able to survive by reason of intrafamily transfers. Most people in society who are beyond the age of schooling and not yet at the age of retirement and who have insufficient assets find it necessary either to work or to live by receiving transfers.

The basic economic unit in our society is the family. Family units are maintained by a division of labor among members of the household. Some persons in the household may engage in nonmarket work (preparation of food, cleaning the house, mowing the lawn), but someone in the household may be required to enter the market to offer labor services in return for a wage or a salary which is used to purchase goods and services for members of the household.

Persons who work in an open competitive labor market command a wage in accordance with the value of their contribution to a product. Employers hire workers because they contribute something to the value of a product which is produced cooperatively with capital, management and other factors of production; not out of any sense of charity nor an altruistic desire to provide individuals with an income. The point is worth stressing because if a worker becomes physically or mentally impaired and his productivity is affected, or is perceived to be affected, the employer may not continue that wage or salary. Consequently, various types of benefit programs are designed to maintain or support income in the event of such contingencies.

Benefit programs provide income to disabled persons only if they do not work: We have developed in the United States, over the years, a comprehensive system of benefit programs for people who are disabled. We examine the system in Chapter II, but for the moment, note that there are different types of programs. Certain programs (the social insurances) are designed to maintain income should a mental or physical impairment interrupt that income. By far the most important of these programs is DI. Eligibility for DI also carries with it, after a waiting period of two years, eligibility for Medicare, an

important element in the total benefit package.

Another type of benefit program is based upon need. The important program here is the SSI program which provides benefits to those who can demonstrate an inability to engage in substantial gainful activity by reason of physical or mental impairment and who can also demonstrate need by passing some sort of a needs test.

As we note in Chapter II, countless other programs pay benefits to those who are disabled. In addition to the specific programs targeted for disabled people, the general income maintenance programs are available to those people whose lack of income may be due to their physical or mental impairments.

The point to be stressed, however, is that DI and SSI both require effective withdrawal from the labor force as a condition for receipt of benefits. Some minimal earnings are permitted, but receipt of income above the Substantial Gainful Activity (SGA) levels will result in the person being cut off the benefits rolls. One test of eligibility is whether the potential recipient is able to engage in "substantial gainful activity." If it is decided that he is able to earn or if, in fact, he does earn at a level greater than the SGA dollar limit set, he is not eligible for receipt of DI payments.

In drafting the legislation, Congress addressed the disincentives problem by attempting to make provisions for an easy transition from benefit status to work status through a trial-work period, waiver of waiting periods for reinstatement and other provisions. Congress also has provided a separately financed Beneficiary Rehabilitation Program (BRP) for the rehabilitation of those who are on the DI and the SSI rolls. In spite of all these provisions we are left with the basic conclusion that benefit programs which provide income to disabled people require that they withdraw from the labor market. As a condition for receipt of benefits; withdrawal from the labor market must be continued and maintained.

Benefit programs cause disabled recipients to refrain from work: The assertion is that benefit programs cause disabled recipients to refrain from work. The implication is that it is the *benefit*, and not the physical or mental condition alone, that causes withdrawal from the labor market.

To demonstrate the proposition, it is essential to distinguish among the various concepts that underlie the term "disability." We will follow what has become traditional practice among disability researchers and distinguish among the pathological condition, the impairment, the functional limitation and the eventual disability (Nagi, 1979).

The first of these is merely a condition classification which is useful to the physician in diagnosing a condition and which is useful to the researcher in classifying that condition. These conditions can be identified by the location of the invading organism, by the area of the body infected or in several other traditional ways. We say that a person has emphysema, bronchitis or that he has influenza, i.e. he suffers from the effects of a flu virus. These medical conditions or listings are not usually accompanied by any notion of severity. Nonetheless, several of these conditions are taken, in and of themselves, to be sufficiently severe so as to cause eligibility for benefits in the DI program. It is not always possible however, to link the condition classification with the person's nonparticipation in the labor market.

Most persons who suffer from these pathological conditions recover. Most of the diseases are self-limiting and cause little concern when it comes to

the disincentives issue. We necessarily are concerned with those conditions which result in some "impairment."

An impairment or medically definable abnormality or loss, may consist of an amputation, an enervation of a muscle, or the malfunctioning of a particular organ of the body, e.g. the kidneys, liver, and so on. Physicians diagnose these impairments observing signs or symptoms such as high blood pressure or elevated blood counts. Most of these impairments tend to be temporary and self-limiting but some result in a "functional limitation." These include the inability to walk, to carry, to lift, or to sit for extended periods of time. Mental limitations may include an inability to relate to people or some other behavioral abberation which may be difficult to identify and to quantify.

These functional limitations become important in deciding whether a person can or should work since most work requires an ability to move to a place of work, to attend, to subject oneself to the discipline that is involved, and to carry out tasks which involve physical or mental capabilities. If functional limitations persist, they may interfere with the number of hours one can work, or they may affect the wage rate which one can command in the labor market.

However, it is not functional limitations *alone* which cause withdrawal from the labor market. The annals of history are replete with examples of persons with severe functional limitations who attain positions of high power in political and commercial spheres. Examples include Presidents Eisenhower and Johnson with their coronary conditions, John F. Kennedy with his severe back problem, and Franklin D. Roosevelt who was confined to a wheelchair. However, functional limitations in combination with human capital endowments; education, training, on-the-job experience, and such demographic characteristics as sex and age may influence the decision to enter the labor market. The labor market opportunities, or lack thereof, together with the chance to receive nonemployment income may also be influential in the decision-making process.

The important sources of nonemployment income for those impaired or functionally limited people who have withdrawn from the labor market are the DI and SSI programs. The higher the level of benefits available to the impaired person, the higher the wage must be to persuade the impaired person to offer hours of work in the labor market.

Fundamental to the discussion of the whole disincentive issue is the notion that some impaired people have *choices* to make in the labor market. They may "choose" to be disabled and qualify for disability benefits, or they may choose to work. The nature of that choice is likely to be affected by the hourly wage rate they can command in the labor market and the levels of nonemployment income available to them. Other economic factors may also influence the disabled person's decision to enter or abjure from participation in the labor market.

Phrasing the problem in these terms separates it from the very different problem of fraud in benefit programs. There may be malingerers in any program who take advantage of the existence of the benefit levels, who suppress vital information, and who do all that they can to receive the benefits available to persons who are legitimately eligible recipients. Efficient administration can do a great deal to remove these people from the rolls or even insure that they do not become eligible in the first place.

Malingering implies fraud, or some deliberate overt action on the part of the person. The problem of disincentives

has little to do with the problem of fraud and malingering.

Given identical physical impairments and functional limitations, one person may become a productive member of society holding down a steady job. Another may withdraw and collect DI or SSI benefits. The differences between these two persons with identical functional limitations may consist of differences in their education, training, experience, or possibly simply in their motivation. What is important in light of our interest in the disincentives issue is that the differences might also be accounted for by differences in the levels of nonemployment income available to these persons.

Rehabilitation is designed to overcome the reluctance people may have to enter the labor market. It also involves retraining individuals where appropriate in order to minimize the affects of their functional limitations on job performance. Rehabilitation also involves guidance and counseling which is designed to discover interests and abilities which can maximize placement potential. In addition, rehabilitation can offer placement services whereby people can become more aware of the potential range of jobs for which they may be qualified.

Research on the Disincentive Issue

Research on this subject is designed to answer four general questions:

Is there a disincentive effect. This is possibly a question that ought to be asked since logically there must be some disincentive effect, but nonetheless, it forms the focus of some research endeavors.

How large is the disincentive effect. This is a far more difficult area. Researchers seek to measure whether disincentive effects have increased over time and the disincentive effects experienced by different clients under varied circumstances. If one had answers to these questions, it would be possible to evaluate the impact of particular changes on disincentives.

What are the causes of the disincentive effect? When probed in detail, it becomes evident that the different benefit levels and various mixtures of receipts of cash or in-kind benefits can affect people of varying ages and demographic characteristics quite differently. Some of these studies seek to identify such causes at almost a clinical level. Others look at general characteristics.

What remedies can be suggested and how can they be evaluated? Two main types of remedies are suggested. The first seeks to improve efficiency of the rehabilitation process. Solutions range from better selection of clients to better rehabilitation methodology.

A second general remedy seeks to modify the benefit programs themselves through administrative changes or in terms of the type and level of benefits received.

Studies differ in methodology. Some are concerned with the "general," "average," or "typical" client and use aggregate data and refined statistical techniques on a cross-sectional or time series basis. Others adopt a clinical approach seeking to ascertain individual characteristics of clients and the effects of specific disincentives on them.

The Plan of this Paper

In Chapter II we examine the cash and in-kind benefits available to those who are disabled. We also look at the development of the vocational rehabilitation program. In Chapter III we look at the general theory of labor supply and the disincentive effect. Although our concern in this paper is with disabled people, it is evident that some disincentive effects exist in any program where benefits are paid and

where nonwork is a condition for the receipt of such benefits. There have been many studies dealing with the general income maintenance program which are based on labor supply theory.

Our consideration of the disincentive effect in general income maintenance plans leads us to inquire if disabled recipients are different from their able-bodied counterparts in their incentive-disincentive behavior. In Chapter IV, we will examine studies of the labor market behavior of disabled persons. We look at the research on disincentives that uses program data. The beneficiary rehabilitation program involving DI and SSI clients has given rise to several studies based on program experiences. In addition, there are several studies using program data which involve experimental design. Although full results are not yet available, we look at the studies underway and ask whether they will yield results that will be useful to the policymaker.

Chapter V examines policy options, the proposals that have been made to ameliorate disincentive effects. These include proposals which seek to improve the efficiency of the rehabilitation process and those which deal with changes in various provisions of the benefit programs.

Chapter VI brings together the conclusions and examines the difficulties that are involved in making changes in this general area.

The Benefit System and Vocational Rehabilitation

Workers' Disability Income System

In the United States we have developed over the years a complex, comprehensive system of long-term private and public benefits for disabled persons ranging from insurance schemes and assistance programs to liability programs which pay benefits to compensate for workers' losses (Berkowitz and Johnson, 1970, and Disability and Health Economics Research Section, 1975). Our main interest is in payments to all persons eligible to participate in the labor force. Given our concern with disincentives, we focus on long-term payments and eliminate payments to children and older persons. The focus is on long-term payments to the economically active segment of the population who, in the absence of their disability, would be expected to participate fully in work activities.

The age distinction is evident in the principal public programs. DI pays benefits only up to age 64 after which time an individual is transferred to the old age and retirement benefit provisions of the social security program. The distinction is less clear in other programs. We seek to separate older persons from those who in the absence of payment are likely to be in the labor force, but the data for workers' compensation, the veterans program and the liability programs do not always allow such distinctions to be made.

In Table I we classify the disability programs according to the reasons for payment.[1] Nothing in the fact of being impaired or functionally limited triggers any automatic payment from any source to any worker. In no system in the world does that take place. There must be some reason for the payment in the first place. We classify programs in the categories of risk aversion, status, social insurance, indemnity and income support (Korbel, 1977; Walls, Masson, and Werner, 1977; and Sunshine, 1977).

Under the first category of *risk aversion* we place the private insurance segment as well as disability payments under employer retirement plans. A person may choose to buy insurance to cover the risk of any future disability. Several possibilities present themselves including purchase of a life insurance policy which would suspend premiums and pay benefits in the event of future incapacity to perform occupational tasks. The actual qualifications for receipt of benefits would depend upon the terms of the particular policy. It may provide a waiting period, a fairly specific test of incapacity after that waiting period and possibly a different test of incapacity after the passage of time.

One could also buy health insurance which would pay income benefits in the event of total incapacity or accidental death and disability insurance which would pay benefits in the event of an accidental disablement.

The private sector plans based upon employment status are also included within the risk aversion category. Group policies, provided unilaterally by the employer as a result of collective bargaining, comprise this group. It is assumed that an individual chooses a

Table 1
Disability Transfer Payments

	1970	1975	1976	1977
Disability Payments Under Insurance Programs				
Whole Life	$ 232,900	$ 426,000	$ 458,000	$ 495,000
Health-LTD	1,817,000	2,618,000	2,798,000	3,109,000
Accidental Death & Disability	150,000	300,000	330,000	360,000
Federal Life	29,579	47,772	53,015	61,999
	2,229,479	3,391,722	3,639,015	4,025,999
Disability Payments Under Retirement Plans				
Federal Civil Service	525,671	1,255,876	1,548,583	1,900,782
State & Local	295,000	490,000	560,000	630,000
Railroads	219,336	389,198	411,758	441,278
Armed Forces	488,041	842,444	919,708	967,328
Private Pensions	1,126,000	2,234,000	2,314,000	2,369,000
	2,654,048	5,211,518	5,754,049	6,308,388
Disability Payments Under Social Insurance Programs				
Social Security Disabilty Insurance	2,778,118	8,413,941	9,965,698	11,462,635
Workers' Compensation	1,947,461	3,612,384	4,175,560	5,103,146
Black Lung	7,000	537,990	561,490	565,828
	4,732,579	12,564,315	14,702,748	17,131,609
Total Indemnity Payments				
Automotive Bodily Injury	4,125,178	6,160,726	7,139,320	7,859,738
Miscellaneous Bodily Injury	848,602	2,332,702	2,805,498	3,168,823
Veterans' Compensation	2,335,311	3,432,786	3,787,519	4,174,041
	7,309,091	11,926,214	13,732,337	15,202,602
Disability Payments Under Income Support Programs				
Supplemental Security Income	1,073,000	2,946,543	3,202,563	3,371,653
Aid to Families with Dependent Children	301,000	580,000	643,000	655,000
Veterans' Pensions	1,050,405	673,194	752,713	899,008
	2,424,405	4,199,737	4,598,276	4,925,651
Totals	19,300,000	37,300,000	42,400,000	47,600,000

Source: Data derived from various sources. Payments for short term disability excluded. Payments are confined to persons 18-64 except in indemnity programs. Detailed source note can be found in Monroe Berkowitz, "Disincentives and Rehabilitation," Rutgers University, New Brunswick, New Jersey, 1979.

job package which provides the rate of pay plus a fringe benefits package which includes insurance against future disablement. In 1977 the total cost in the risk aversion category was over $10 billion.

Private and collectively bargained types of insurance plans are important, but discussions of disincentives center around public social insurance programs. In the United States, our principal social insurance program in the field of disability is the work-place based DI program which represented a public expenditure of $11.5 billion in 1977. The employer is compelled to insure each of his employees against the risk of disability (Berkowitz and Johnson, 1970).

Also included under the social insurances are the worker's compensation programs which are administered at the state level and provide payment only in the event of injury or illness which occurs on the job. Estimated 1971 payments were over $5 billion. The social insurance category also includes the Black Lung Program. The Black Lung Program was enacted in 1969 under the Social Security program and covers miners who are totally disabled by black lung disease. The program is administered by the Department of Labor and financed by federal grant revenues as well as tax revenues raised through a tonage tax on coal mining operations. Total 1977 social insurance payments are estimated at $17.1 billion.

Almost as much ($15.2 billion) is paid in *indemnity programs*. Indemnity payments are made for disabilities which are the result of negligence as that term is defined by the courts. The basic theory is that when harm has been done, payment ought to be made in compensation. Cash recoveries in damage suits for automobile accidents or medical malpractice are classic examples. Successful suits may result in cash recoveries which are generous since they are based on an evaluation of "harm" which can include payment for the pain and suffering incurred. The estimated total of indemnity payments in 1976 was $15 billion which includes $4.2 billion paid to veterans for service-connected disabilities. It is assumed that veterans are being indemnified for injuries received while serving in the armed forces.

It is possible to include workers' compensation and the black lung program in the indemnity program. However, these programs pay benefits to all covered persons, whether their injury occurred as a result of negligence or not. Since the "liability without fault" is secured by an insurance program, we include it under the social insurance category.

The principal *income support* program is the SSI program which is a combination of the old Aid to Permanently and Totally Disabled Persons and the Aid to the Blind programs. Eligibility requirements utilize much the same definition of disability as the DI program; however, candidates for SSI benefits must also qualify on the basis of need. In order to qualify, the applicant's assets must not exceed a stipulated amount. The value of some assets such as a home or car are exempt.

The recipient's benefit is reduced by "countable income." Countable income is all earned and unearned income, excluding $20 a month of income from any source, $65 a month of earned income, and 50 percent of additional earned income. The matter is complicated, however, since individuals are also required to meet the SGA test. Thus an individual cannot earn more than $280 (1979 figure) a month and still remain eligible for SSI, except during

a trial work period.

Total SSI payments in 1977 were $3.4 billion. Also included in the income support category is $655 million estimated to have been paid to Aid to Families with Dependent Children (AFDC) recipients when the head of the household was disabled. Additionally, Pension programs for veterans are included in the income support category. Some $99 million was paid to veterans who were able to demonstrate need. The logic behind separating veterans from other needy persons may not seem apparent at first; however, society has made a judgement that they are entitled to payments by reason of their status as veterans.

Disincentives—A Preliminary Look

The SSI program is an excellent example of a program in which eligibility is based on the twin grounds of disability and need. Need is defined in accordance with a set of fairly complex rules. Attention must be paid to family earnings and assets income which may be disregarded as well as that portion which can be kept, and a whole series of other rules.

We can get a preliminary look at some of the disincentive issues if we consider a hypothetical case. Assume that an individual is entitled to the federal SSI benefit of $189 per month, has no unearned income, but earns $100 per month in the labor market. The first $85 of earned income is exempt leaving 50 percent of $15, or $7.50 as countable income. That $7.50 will be deducted from $189 in SSI benefits resulting in a monthly benefit of $181.50. That benefit combined with $100 of earned income results in total income, including SSI benefits, of $281.50. As shown in Table 2, if the individual's earned income doubled to $200 per month, SSI benefit would be reduced by an additional $50, to $131.50 and total income would be $331.50.

Alternatively, with an earned income of $259 per month (one dollar less than the assumed SGA earnings) SSI benefits would be $102 per month and total income would be $361. However, should earnings equal or exceed $260 per month for a period which exceeds a nine month trial work period, total income would be reduced abruptly to $260 since all SSI benefits would be forfeit.

Benefits In Kind

In addition to cash benefits the disabled person may be eligible to receive benefits in kind. Not the least of these are the services provided by the vocational rehabilitation program which is the focus of our discussion on disincentives. Apart from the vocational rehabilitation program, however, are both the Medicare and Medicaid programs. DI recipients qualify for medical benefits provided through the Medicare program upon completion of a two-year waiting period. Because most disabled people face expensive medical care costs, Medicare benefits are a necessary and valuable form of assistance. Loss of these benefits may consititute a severe financial hardship to the potential worker. SSI beneficiaries are eligible for Medicaid. Eligibility is based upon a needs test.

Additionally, income may be derived through individual or family eligibility for the general public assistance programs. These programs may include Aid to Families with Dependent Children, General Assistance, and various other types of programs (Johnson, 1979). The Food Stamp program and the Rent Supplement program are examples of other types of benefits for which disabled persons and/or their families may be eligible.

Table 2
Calculation of SSI Benefits and Countable Income for a Single Individual
SSI Benefits of $189 a Month

Earnings	Countable Income	SSI Benefits Less Countable Income	Total Income Earnings Plus SSI Benefits
$100	$7.50	$181.50	$281.50
$200	$57.50	$131.50	$331.50
$259	$87.00	$102.00	$361.00
$260			$260.00

Source: Calculated in accordance with the eligibility rules for SSI. See John Korbel's memorandum, February 24, 1979, p. 15 and a Guide to Supplemental Security Income, U.S. Department of Health, Education and Welfare, HEW Publication SSA 77-11015, September 1977.

Thus, when we consider the benefits available to disabled persons, we must include general public assistance programs available to disabled, nondisabled, and their families as well as workers' disability income programs targeted specifically for the disabled population. Eligibility for such programs is usually dependent upon the passing of some sort of means test. These programs, like the disability programs, include benefits in kind as well as the basic cash benefit.

Walls, et al, lists 76 federal programs in which VR clients and/or their families might participate (Table 3). Following Burke and Townsend, they classify these 76 programs into four categories. The first of these has what they term "no income" rules. These include programs in which income is not considered as a criterion for eligibility. The second category represents programs which place a limit on wages; this category includes the DI program. The third category includes programs which place limits on wages and some public benefits, reflecting the fact that receipt of workers' compensation may serve as an offset in some programs. The fourth category programs place limits on some wages, some public benefits and unearned private income as well. This is the broadest category and includes all programs which are subject to the general means test.

It is evident that once we include the in-kind programs, as well as the cash transfers, and once we include those benefits which may be received by disabled persons or their families but not specifically targeted to them, we have a wide range of programs. When we consider that so many of them are conditioned upon some limitation of income, we get some idea of the potential losses for those individuals who would lose eligibility if they began to work.

Coordination Problems

Some of the perplexing problems involved in the coordination of benefits are exemplified by the legislative rule in the case of the black lung program. The basic benefit for the disabled miner who is eligible for black lung benefits is reduced by 50 percent of earnings in excess of $200 per month. Benefits are also reduced dollar for dollar by the amount of worker's compensation payments received for the black lung disability. However, there would be no reduction if the workers' compensation payments were received for some impairment or functional limitation other than black lung disease. Alternately, coal miners can qualify for and receive DI benefits while receiving concurrently black lung benefits.

The rationale behind program rules such as these is complex and involves many different kinds of benefits, but the logic behind the system as a whole can be seen if one understands the several *reasons* for the payment of benefits. *Indemnity payments are due recipients as a matter of right.* They arise because of the demonstrated harm brought about by another's negligence.

In the *private insurance programs, people are entitled to benefits, provided they met the eligibility conditions contained in the insurance contract.* Whatever the tests of disability and the limits on outside earnings and activities, they are the product of the choice of the parties to the contract.

In all the *social insurances* a worker must show that she/he is covered, and has met the particular eligibility conditions. In the field of workers' compensation for example, a worker must show that she/he is a covered worker whose condition is the result of an injury which "arose out of and in the course of" employment. In the black lung program, a miner must demonstrate total disability as the result of

Table 3
Federal Programs for Income Security by Eligibility Rules for Current Income

No Income Rules

Medicare—for aged and disabled persons
Veterans compensation for service-connected disability
Veterans compensation for service-death
Veterans housing loans
Veterans medical care for service-connected disability
Veterans educational assistance for veterans, dependents, and survivors
Veterans vocational rehabilitation allowance for 30 percent disability
Retirement—federal civil service and military
Social security for persons aged 72 and over
Federal employees' compensation for job-related injuries
Meals for certain persons aged 60 and over

Limit on Wages
(for beneficiaries under age 72)

Social Security—Old Age, Survivors, and Disability Insurance (SSDI)

Limit on Wages and Some Public Benefits

Railroad retirement, disability, and survivor benefits
Unemployment insurance—federal, state, railroad, and trade adjustment
Black lung benefits for miners, dependents, and survivors

Limit on Wages, Some Public Benefits, and Unearned Private Income

Cash Aid
- Aid to Families with Dependent Children (AFDC)
- Supplemental Security Income (SSI)
- Veterans pensions for nonservice-connected disability or death
- General assistance to specific groups—Cubans, Indians, disaster populations, and emergency assistance

Food Benefits
- Food stamps
- School programs—breakfast, lunch, and milk
- Special supplemental feeding for women, infants, and children

Health Benefits
- Medicaid
- Medical care for veterans with non-service-connected disability
- Comprehensive health services
- Children's programs—dental comprehensive health, infant care projects, and crippled children's services

Housing
- Low-rent public housing
- Rent supplements
- Homeownership loans, urban and rural, private and rental
- Rural housing—technical assistance, site loans, repair loans
- Indian housing—improvement and technical assistance
- Appalachian housing program

Education
- Basic educational grants
- College work-study
- Student loans—various kinds for special fields
- Head Start and Follow Through for primary school children
- Upward Bound and Talent Search for high school students
- Work study vocational education

Jobs and Training
- Comprehensive Employment and Training Act (CETA)
- Work incentive projects
- Vocational Rehabilitation services
- ACTION-sponsored programs—Foster grandparents and senior companions
- Career opportunities program

Social Services
- Services to needy families on welfare—counseling, day care, homemaker service, health care
- Services to needy, aged, blind or disabled
- Legal services for the poor

Source: From "Negative Incentives to Vocational Rehabilitation," by R.T. Walls, C. Masson and T.J. Werner, in *Rehabilitation Literature* 38 (May 1977): 143-150.

black lung disease. The recipient must meet the occupational definition of a coal miner or be the survivor of a deceased coal miner who was totally disabled by black lung or whose death resulted from that disease. The definition of black lung disease is a complicated one and both the statute and the rules and regulations spell out how it shall be diagnosed and determined.

Complicated rules have been set up to offset one program's benefits against the other. For example, Congress has adopted several rules in the past governing the interrelationships between workers' compensation payments and DI payments. At the present time, the combined income from workers' compensation and DI benefits cannot exceed 80 percent of the workers' preinjury wages without reduction in social security benefits.

Such rules have been adopted to insure the program's integrity among competing programs which have been designed to compensate overlapping beneficiary populations. Black lung and workers' compensation demonstrate a conflict in which the populations served by some state programs overlap with those eligible under the black lung legislation.

The important limits are contained in those programs which are based upon need. Cash benefit transfer programs based on need include the SSI program (a program specifically targeted at the disabled), AFDC, veterans' pensions for nonservice connected disability, and General Assistance programs. Equally important are those benefits in-kind programs which are need-based including those programs which provide food, medical care, housing, education, jobs and training, and social services. Thus a SSI recipient who contemplates returning to the labor market, faces potential loss of all SSI benefits and may additionally endanger the family's eligibility for food stamps, health services, housing or rent supplements, education subsidies and entitlement to social services. The total financial deficit to the family could be significant in comparison to potential earnings. Additionally, earnings are subject to income tax and social security payroll tax, whereas SSI benefits are not. Work may also entail transportation and other occupational expenses which further aggravate the disincentive to return to a job.

The Vocational Rehabilitation Program

In light of current developments in vocational rehabilitation, it is well to recognize that vocational rehabilitation was an outgrowth of worker's compensation. In 1916, Massachusetts passed a law that authorized the state board of education to retrain victims of industrial accidents and diseases. Efforts were made to nationalize the act, and these paid off in June 1920 when Congress passed a law providing for "the vocational rehabilitation of persons disabled in industry or in any legitimate occupation." The new law marked a federal effort to establish a state service to advise compensation clients how to spend their benefits wisely and to retrain them for new and suitable occupations. Following precedents for the federal grants-in-aid for vocational education, Congress placed the new agency within the educational bureaucracy (Berkowitz, 1979).

At its begining, the program emphasized taking as clients those people who had a reasonable chance of entering the competitive labor market. In 1926, 57 percent of the cases rehabilitated were under 30 years of age and only 9 percent were over 50. The secret of successful rehabilitation was

in the selection of the "most likely" cases, and it was this selection process which caused rift between the workers' compensation program, which compensated victims of industrial accidents without regard to their demographic characteristics, and vocational rehabilitation programs (Berkowitz, 1979).

When social security came into being during the depression, attempts were made to incorporate vocational rehabilitation into that program. As early as 1940, it was expected that the disability insurance program would be passed and that rehabilitation services would be an integral part of it. The vocational rehabilitation program began to move from being strictly a training or educational program with the inclusion of physical restoration services. Although some states such as New Jersey had incorporated physical restoration as an integral part of the vocational rehabilitation program from the beginning, it did not become a widespread program component until the 1940's.

World War II brought increased attention to rehabilitation. Attempts were made to integrate veterans and civilian rehabilitation programs. Although these efforts did not come to fruition, the Barden LaFollette Act, signed by the President on July 6, 1943, permanently altered the rehabilitation system. For the first time, the law permitted a national medical attack on the problem of disability by allowing the federal government to subsidize medical services. With the passage of the disability insurance program in 1956, rehabilitation became an important component of the social security program. Even before the passage of the program, when an earnings freeze for disabled workers was enacted in 1954, the law required the referral of disabled workers to state vocational rehabilitation agencies. With the introduction of cash benefits in 1956, a similar referral provision was included with the additional specification that benefits could be withheld or reduced if the disabled beneficiary refused rehabilitation services without good cause. That provision was seldom invoked and in subsequent years positive inducements were provided to encourage the beneficiary to return to work if only for a short time. An example is the creation of the trial work period to protect those who seek active employment against the possibility of a permanent loss of benefits. Despite the rehabilitation requirements and the trial work provisions, the number of disability insurance beneficiaries receiving rehabilitation services remained small during the 1955-1965 period. With more than 2 million severely disabled persons receiving benefits only about 19,000, or less than one percent, were rehabilitated by state vocational rehabilitation agencies. Over the same period only 1.9 percent of the total number of rehabilitated clients were disability beneficiaries (Berkowitz, Horning, McConnell, Rubin and Worrall, 1980).

We take up the development of the vocational rehabilitation program further as we examine the Beneficiary Rehabilitation Program (BRP) in Chapter IV.

Chapter III

Labor Supply and Disincentive Effects

Labor Supply Theory

If our task is to understand the extent to which persons who receive transfers may be reluctant to undertake or complete rehabilitation programs, we cannot ignore the extensive developments that have taken place in the theory of labor supply. The literature in this area is technical and complicated, but it should be possible to set forth some basic notions and to report on some of the empirical work that has been done to estimate labor supply functions. In this chapter we look briefly at the general theory of labor supply and how labor supply functions have been estimated using nonexperimental design projects involving the negative income tax.

Modern work in labor supply theory goes back to a 1930 article by Lord Robbins, "On the Elasticity of Demand for Income in Terms of Effort" (Robbins, 1930). In order to simplify the problem, Robbins thought of a worker who had only two alternative uses of his/her time; either work or leisure. As he saw it, the purpose of work was to receive a wage with which various goods could be purchased. Working in the labor market meant that the person had to give up a particular amount of leisure. The issue at the time concerned whether or not an increase in a tax on wages would increase or decrease the hours of work that the person would offer in the labor market. Robbins demonstrated that the answer was indeterminate because two opposite tendencies were at work. If the effective wage rate were reduced by reason of the tax, the cost of each hour of leisure also declined. The worker then might choose to spend more hours in leisure and hence work less. On the other hand, with a given amount of work, income would decline because of the higher tax, and the worker might sense that she/he could not afford to purchase as much leisure and hence would choose to work more.

Conversely, if the taxes on wages were reduced, leisure becomes more expensive and workers would tend to consume less leisure and hence work more. However, income has increased and more of it could be spent on all goods, including leisure which can be purchased, results in less time spent at work.

In this connection it becomes traditional to talk about a "substitution effect" which means that if the aftertax wage increases, the worker would tend to substitute work for leisure and hence work more, and an "income effect" in which she/he would tend to purchase more of leisure and hence work less. The two effects, therefore, might cancel each other out; we cannot tell which would prevail. However, since our main concern is with disincentive effects that arise in transfer payment programs, this is not as much a problem. Both the income effect and the substitute effect are probably operating in the same direction, and both may result in decreasing the number of hours of work offered in the labor market. The reason is that the benefits bring income, with the ususal income effect, but also the benefits may be reduced with earnings, resulting in an

effective tax on the wages earned. Consequently, the reduced wage that the worker receives for additional hours of work may result in less work due to the substitution effect. The substitution effect, therefore, operates in the same direction as the income effect in reducing hours of work.

Workers in the SSI program, for example, who increase their earnings may have 50 percent of those earnings in effect taken away by reason of a reduction in their SSI benefits. Thus, with their effective wage reduced, and they would tend to purchase more leisure and hence work less. Thus, both the income and substitution effects work in the same direction.

There have been a good many developments in the theory of labor supply which we cannot explore here. Leisure has come to be understood as a convenient label for all nonwork uses of time. We recognize now that time may be spent in training, education, or as in the case of disabled people, in rehabilitation or convalescence activities.

Also, we recognize that it is not the single individual, but the family that is the appropriate decision-making unit. In addition to work in the marketplace, some members of the family may spend their time in nonmarket labor such as work around the home, preparation of meals, cleaning house, and general maintenance activities in and around the home.

There has recently been a great deal of activity in the empirical testing of labor supply models and much of it is relevant for our discussion of the disincentive effects among disabled persons. This work has been stimulated by the so-called "welfare crisis" and the proposed reforms to replace categorical programs. In 1969, President Nixon proposed the Family Assistance Plan which would have increased substantially the number of families covered by some form of income maintenance. President Carter proposed the Program for Better Jobs and Income. Each of these is a form of a negative income tax scheme which would pay benefits to needy families even if one or more family members were currently employed. In considering the feasibility of such schemes, the question was whether guaranteeing a floor of income, and providing for a 50 percent or some other negative income tax rate, would substantially reduce participation in the labor force.

Empirical Studies

It was natural for researchers to turn to the work that has been done in labor supply theory and the testing of models. Paul Douglas and associates pioneered in empirical studies of the supply curve of labor during the 1930's (Douglas, 1934). Using census data they found that the gross effect of an increase in earnings on the quantity of labor supplied was negative. That finding was consistent with the time series data. Over the years, males in the labor market have reduced their life-time hours of work by later entrance into the labor force, by shorter hours per week, and earlier retirement.

Interest also centered on the labor force behavior of women. In 1963, Jacob Mincer reported his study on the labor force behavior of married women (Mincer, 1963). Further studies were conducted by Glenn Cain (Cain, 1966). Mincer estimated the income effect for the wife on the basis of the husbands' income and the substitution effect on the basis of wages paid working women. Mincer found the income effect was larger than the income effect in absolute values. That helped to explain the dramatic long-term increase in the participation rates of married women in the labor force.

The findings as far as married women are concerned are interesting to us because traditionally they have been considered "secondary workers" in the labor market with good nonmarket work uses of their time. Their supply elasticity of labor ought to be relatively large, making their supply of market labor more responsive to changes in wages, given the alternative uses of time.

Impaired or functionally limited workers with alternative uses for their time may respond in much the same way. They may have a socially valid reason for withdrawal from the labor market and maybe in a different position than a prime age male, who by culture and tradition, is expected to work.

The growing importance of secondary workers who may move in and out of the labor market is making the whole family's labor supply more discretionary, more flexible, and more responsive to wages and income effects. If we consider the family as a whole, in the event that the head of the household becomes disabled, another member of the household may replace him in the labor market allowing the impaired person to take over some possibly less demanding nonmarket work at home.

Availability of information from large surveys, specifically the 1967 survey of Economic Opportunity and (particularly relevant for impaired and functionally limited persons) the 1966 and 1972 Social Security Surveys of Disabled, has given impetus to the empirical nonexperimental studies of labor supply. The 1972 survey also included a sample of nondisabled persons.

Each of these surveys asked questions of a cross-section of the population at a given moment in time. To test labor theories, it is necessary to assume that different people with different incomes and work experiences represent what would happen if, over time, we changed income support, wage offers, or any other aspect relevant to the labor supply decision.

The technique used is to choose a dependent variable, be it labor force participation (either the person is in or out of the labor force), hours of work, or some other measure of labor force activity. The attempt then is to account for the variation using, for the most part, ordinary linear regression models. The significant independent variables used would be wages, nonemployment income, together with a whole group of control variables to measure impairment, functional limitation or disability. Most of the basic work in this area has been done without too much regard for the health status of the participants, in part because that variable is so difficult to quantify.

People do differ in ways that cannot be accurately specified in these equations. However, the techniques are getting better and now include ways to approximate such variables as the differing motivation for work among the population (Cain and Watts, 1973; and Masters and Garfinkel, 1977). Much is wrong with these studies and the people who know most about them are the first to admit the problems that arise because of specification errors, the bias in variables, and because certain information is not available from the existing data sources. The findings are, not surprisingly, that the income and substitution effects vary in accordance with the demographic groups covered.

In general, the results bear out the theoretical expectations: if you transfer income to persons they will spend more time in leisure, and offer fewer hours in the labor market, but the results do not show large dramatic effects.

In one of the studies, for example, Greenberg and Kosters predicted a $2,400 guarantee and a 50 percent tax would cause a 15 percent reduction in the labor supply of male heads of

covered families (Greenberg and Kosters, 1973). The Garfinkel study predicts a $3,000 guarantee and a tax rate of 50 percent would reduce the labor supply of prime age, able-bodied husbands anywhere from 0 to 3 percent (Masters and Garfinkel, 1977).

Masters and Garfinkel, working with a differently specified model, indicated that a new negative income tax program with a guarantee at the poverty level and a tax rate of 50 percent would lead to the reduction of labor supply of 2.4 - 4.1 billion hours of work. In percentage terms, however, these figures tend to be quite small, 2.5 to 4.3 percent of total hours and 1.2 to 2.1 percent of total earnings (Masters and Garfinkel, 1977).

Negative Income Tax Experiments

Because of these widely disparate estimates those concerned with policy have turned to the problem of designing an experiment in which some people would be under one type or another of a negative income tax, and a control group would remain with the welfare system as it exists. The difficulties with the linear regression models (choice of control variables, choice of dependent variable, decision to use particular groups, problems with the data) are also present in the experimental design studies. Since the experiments tend to be costly, they have to be of limited duration. Samples, of necessity, must be rather small and there is no way of predicting what effect the singling out of a particular group of people for particular treatment will have on the results.

In spite of all these difficulties, we have gone further in the area of the negative income tax experiments than in probably any other form of social experimentation. It can rightly be said that the New Jersey income maintenance experiment was the first social science experiment conducted on a large scale addressing a critical public policy issue. It cost $8 million and involved 1,350 families and lasted for a period of five years. It was followed by three more income maintenance experiments. The basic idea was to determine what effect the negative income tax would have on the work effort of beneficiaries.

In accordance with labor supply theory, sponsors of the experiment expected to find that payment of substantial amounts of unearned income to poor families would reduce the amount of labor they supply, but not significantly (Watts and Rees, 1977).

If we view the family as a decision-making unit, it is obvious that there are at least two kinds of labor supply responses with which one ought to be concerned. Some members of the family may be induced to drop out of or to join the labor force; other members of the family, particularly the bread winner, may adjust their hours in response to changes in the negative income tax. For example, teenage persons in the family might withdraw and devote full time to study, or wives may devote full time to keeping house.

The expectations of those who designed the experiment about "labor force participation" rested more heavily on the substitution effects than did those about "hours of work." The reason is that as real wages have risen through time, male labor force participation rates have fallen, suggesting, that negative income effects outweigh the positive substitution effects of real wage increases. However, the participation rates of wives have risen through time as real wages have risen. Either

the income effects are smaller than the substitution effects, or they are offset by other changes in the opportunities confronting wives such as the availability of work-saving home appliances and prepared foods (Watts and Rees, Vol. II, 1977).

But in the real world, there are dynamic considerations to take into account. The work may be able to change the wage rate she/he is offered. Also, the negative income tax was not a permanent change but one which necessarily was of limited duration. Further, the negative income tax scheme was introduced in a world which already had existing welfare plans of all sorts, including, of course, the whole set of disability plans.

Each of these considerations is interesting in light of our interest in disability problems. The first is the idea that the worker could change his market wage in several different ways, including withdrawing from the labor force to undertake training that would raise his wage at some future time. That is exactly the kind of behavior expected of persons who undergo rehabilitation programs. The withdraw from the labor force and undertake rehabilitation of one sort or another, presumably to increase their wage opportunities in the future. Any type of benefit available to them has the desirable effect of allowing them to do that very thing. One of the many paradoxes in any discussion of disincentives is that the same benefit levels that induce one person to refuse rehabilitation may provide another person with the income to undertake rehabilitation in the first place.

The other type of argument advanced was that earnings might fall more than the hours. The idea was that a worker with the security of the negative income tax benefits could shift towards more pleasant jobs which may pay less. Thus earnings may fall more than hours.

The limited duration of the experiment has its obvious defects and the fact that any system was imposed on a pre-existing system proved to be important in the case of the New Jersey experiment. At the beginning of the experiment New Jersey did not grant welfare benefits to households with a male head. [It did not have an Aid to Families with Dependent Children-Unemployed Parent Program (AFDC-UP)]. New Jersey was chosen, in part, for that reason. However, in January, 1969, three months after people began to be enrolled in the program in Trenton, New Jersey, the state introduced a welfare program for intact families. Until they were cut back in July 1971, benefits under the plan were more generous than those of most welfare plans in the country, and more generous over certain income ranges than some of the experimental plans.[2]

Based on the literature and the non-experimental studies that have been carried out over the years, certain expectations were formed. There was never any expectation that able-bodied male heads of households would withdraw from the labor force in response to temporary payments too small to support large families. There was an expectation that some would reduce their hours of work, or spend more time searching for new jobs when they lost or quit their jobs. They expected some teenagers to return to school and some working wives to leave the labor force. The reduction in labor supply that was expected was on the order of 10 to 15 percent. There was no expectation that there would be any differential effect by ethnic groups. However, there was an expectation that higher tax rates and higher guarantees would produce greater reductions in labor supply. The actual results are, as usual, a bit more complex and more ambiguous than

were anticipated, and they are difficult to summarize.

In general, the estimated effects of the experimental treatment on labor supply were in accordance with expectations. For white and Spanish-speaking families, for the group as a whole, but not for blacks, the effects were negative, but not very large. It consisted of a reduction in hours of work for white male heads, an increase in the unemployment rate of Spanish-speaking male heads, and a large relative reduction in the labor force participation rate of white wives.

Hence, if one were to set about calculating the cost of a negative income tax program on the assumption of *no supply response, these results strongly suggest the estimated cost would be too low*. However, the added cost produced by the supply response is a rather small proportion of the total cost, not over 10 percent and probably closer to 5 percent (Watts and Rees, Vol. II, 1977).

Some of the problems with the New Jersey income maintenance experiment have been solved or at least reduced in importance in the subsequent experiments in Seattle and Denver which were conducted on a much larger scale taking advantage of what was learned in the earlier experiments (U.S. Department of Health, Education and Welfare, 1978). In the Gary, Indiana experiment, Moffit found that husbands reduced their hours of work in response to the experiment by between 3 and 7 percent, findings that are in line with the other experiments (Moffitt, 1979).

Cross-Sectional Studies Using Non-Experimental Data

As we learn more, the experiments make it possible to utilize nonexperimental data better. Microsimulation models have been developed by the Department of Health, Education and Welfare to estimate the cost and effects of proposed alternatives to existing welfare schemes. Although these simulation models are interesting and promise a great deal, it is still a long way before they can be relied upon for accurate predictions (U.S. Department of Health, Education and Welfare; Beebout and Bonina, 1973).

From our point of view, given our interest in the labor supply responses of disabled persons, the problem with much of the literature is its failure to take into account the disability status, impairment status, or health status of participants. Jacob Mincer's study referred to above does not mention health at all (Mincer, 1963). Koster's study which forms the basis of many of the newer looks at labor supply also does not treat health (Kosters, 1966).

Of the seven studies in the Cain and Watts volume, five used "disability" variables. People are asked whether their health limits the amount or kind of work they can do. If they answer "No," they are classified as nondisabled. The problem is that the variable is not what the econometricians would call truly "exogenous" because the response is dependent on one's work. In a sense it is a tautology. If I am not working and I believe the reason that I am not working is my health or physical condition, then I would respond that my health limits the amount or kind of work that I can do. However, it is seldom a physical or mental condition alone that causes a person to stop work, or to work fewer hours.

The matter can be illustrated in various ways, but it is useful to think of two people with identical impairments, let us say, an upper limb amputation. One is a baseball player who is forced to leave his ball club and possibly is unable to get another job. The

other may be a lawyer whose lack of one limb does not significantly affect his job performance. Thus, two people have identical impairments, or in one sense, identical health, but the disability variable would not be the same for them. The measurement would be an endogenous measure of the extent to which each is affected by health, due to other factors (Lambrinos, 1979).

In other words, the disability variable is not very informative, in that it is dichotomous. It can be used to break the sample into two groups, but health is not simply either a "Yes" or "No" proposition. It is a continuous measure.

We would like to know how people, with certain impairments or functional limitations, are affected by benefit levels. We cannot get at that if all we know is the responses to questions which have been posed as to whether health limits the amount or kind of work. In a sense we are begging the question. We do not know to what extent the availability of the very income maintenance alternative that we seek to be informed about influences whether or not a person with a given impairment or functional limitation has left the labor force.

Not many studies have attacked this problem directly, and it is easy enough to pick out the defects of those that have. Berkowitz and Johnson looked at labor force participation using a series of variables to measure health (Berkowitz and Johnson, 1974). The attempt was to use data from the 1966 Social Security Survey of the Disabled to deal with functional limitations. Introducing these variables reduced both the wage rate and the asset income coefficients, but the basic problem with this study is that it dealt only with disabled adults since they were the only persons covered in the 1966 survey.

More recently, using data from the 1972 survey, Berkowitz created seven health variables, moving beyond functional limitations to look at an index of health symptoms, such as pain, shortness of breath, or dizziness (Berkowitz, 1978). In this study no systematic changes were found in the wage rate and nonemployment income coefficients, possibly due to the defects in the measurement of the labor supply variables.

If the labor supply nonexperimental literature is difficult to summarize, the problems are even more complicated when we attempt to include health as a variable because there are different specifications for [illegible]alth variable, different dependent variables, and different control variables. However, the work does indicate that it is important to include some sort of health variable because health does make a difference. When we use the term health here, we are thinking of some good measures of impairments or functional limitations rather than a disability variable. We are also thinking largely of those people who are chronically impaired and who are expected to be out of the labor force by reason of their impairments for a long time. In short, exactly the same population that would be eligible for vocational rehabilitation assistance and for whom disincentive effects may possibly be important.

What we can say from the literature is that the labor supply decisions for people who are impaired or functionally limited tend to be much more sensitive to wage rate and nonemployment income changes than for the healthy group. This suggests that there is likely to be a change in the amount of labor offered in terms of hours of work or even participation as the availability of nonemployment income to them changes.

One dividend of the work that has been done on the nonexperimental research is to refine the concepts of allo-

cation of time for disabled workers. They may not allocate their time simply between work and leisure. An impaired individual may be limited in his ability to enjoy and utlize leisure time, as well as in the performance of certain work tasks. There may alsc be a reduction in the total hours of time available to a person who is functionally limited. This reduction may be both in hours of work and in leisure time resulting from time spent in rehabilitation, refraining, physical restoration or simply rest and recuperation. Also the time necessary to commute to work may be greater and must be taken into account when calculating the allocation of time for these several types of activities. We might usefully think of work, leisure, and possibly a third allocation of time for maintenance activities associated with the health or impairment status.

Enough work has been done, however, to indicate the importance of the appropriate measurement of a health variable. When it comes to the hours of work offered in the labor market, the health variable is one of the most important determinants of labor supply. An improvement in the health status always increases the amount of labor supply offered by a certain constant amount. It also increases by two variable amounts that depend upon the wage rate that the impaired person is able to command in the labor market and the level of nonemployment income. For the sample of white males used by Lambrinos, for any given change in health capital, labor supply will be reduced by a small amount for each dollar of nonemployment income.

The whole concern about the problem of disincentive argues that we need a much better measure of these health variables than we have. We cannot continue to use results based upon people's responses in the labor market to questions of whether their health limits the amount or kind of work that they can do. We have to be able to get at the extent to which particular functional limitations or impairments will affect labor supply, given the several demographic factors, personal characteristics and the levels of nonemployment income that are to be offered. Perhaps the work along these lines has matured sufficiently so that it would be appropriate to institute some type of experiment along the lines of negative income tax for differential types of disability insurance and rehabilitation alternatives.

Chapter IV

Research Studies on Disincentive Effects in Rehabilitation

Introduction

In this chapter we review research projects involving experimental design and those which use program data. We begin with the material on experimental design since this may be the most accessible; although most of the research reported here is not yet complete.

The West Virginia Studies

The first project to be reported on is one undertaken by the University of West Virginia Research and Training Center which began in May 1976. The completed report was not available at the time of this writing.

The objective of project is to answer the question:

. . . which types and amounts of cash and in-kind benefits (at what benefit-loss rate) discourage eligible individuals from engaging in and completing VR services. Further, to what extent is this a problem in VR, and, if it is a substantial problem, what are some possible remediating actions? (West Virginia Research and Training Center, 1979).

The 76 different programs identified by Burke and Townsend (see Table 3 of Chapter II) are used in this project to cover the range of benefits. The project leaders recognize the disincentive effects of what we have called "non-employment income" and that the exact magnitude of these effects can only be determined by an analysis of actual work patterns given different levels of guarantees and benefit-loss rates. Further, they recognize that the problem becomes complex when persons are eligible to participate in more than one program since receipts from multiple programs can provide a high income guarantee in comparison to miminum wage earnings:

A particularly insidious arrangement may incur, if workers receiving multiple benefits actually reduce the total income when they work, that is, they may lose more than they gain. (p. 173)

They cite a hypothetical case of a worker who increases his monthly income by $100 by working more hours. Given multiple benefits and program rules, the worker may lose benefits in excess of $300. By losing eligibility to one program, she/he, in turn, loses eligibility to other programs tied to the first.

The West Virginia experiment selected vocational rehabilitation clients of varying age, sex and disabling conditions. About half were receiving some cash or in-kind benefits on referral to VR, and the other half were not.

The experimental group would, of course, be receiving varying amounts and types of benefits but no attempt was made to stratify on the basis of the types of benefits received. The study is designed to compare the frequencies of successful closures for the experimental versus the control group. The dependent variable is the closure status of the individual and factors associated with it, such as whether the closure is in competitive employment or homemaker employment and the earnings received.

Full-time interviewers were assigned to collect data in the Charleston-Huntington, West Virginia area and the Baltimore area. They talked to potential clients after the clients left the agency intake interviewer. Potential VR clients

were assured that all their answers would be confidential and that their VR or other benefits would not be affected in any way. At the interview, they are told the nature of the study and asked to sign a statement indicating that they have answered truthfully and that they voluntarily participated in the confidential interview. That remains the only personal contact of the project team with the potential client.

The person's progress in VR is then monitored through agency records. When the person exits from the VR system in Status 08, 26, 28, or 30, the staff will be able to note from the computer recovery of that individual's record how the receipt pattern of benefits was related to VR outcome. Status 08 indicates closure from the program prior to the receipt of services, Status 26 is successful closure as a rehabilitated person, 28 is nonrehabilitated after services, and 30 is nonrehabilitated before receipt of services.

The researchers will determine the amount of cash and in-kind benefits potential VR clients are receiving at referral, and then compute the reductions of those cash and in-kind benefits that would occur if the person were rehabilitated. The relationship between these benefit reductions and progress in VR will be monitored on an individual client basis so as to specify the scope of the negative incentive issues.

It was not possible to select control and experimental groups of exactly the same size since of 304 VR clients selected, 208 (68 percent) were receiving some kind of cash or in-kind benefit at referral to VR. The remaining 96 were not receiving benefits from any of the sources listed in the benefit survey.

Of the 208 individuals with benefits, 84 (40 percent) received benefits from only one source. Seventy (34 percent) received benefits from two sources with a diminishing percentage receiving benefits from multiple sources. Four of the clients (2 percent of the sample) received benefits from five sources and one from six sources.

The average amount received was $323 a month from all sources and the indications are that they would lose an average of $318 a month if they obtained a minimum wage job which, at 40 hours per week would yield $424 a month before taxes and withholding.[3] (The calculation is apparently based on four weeks per month. If it were based on 4 1/3 weeks per month, the minimum wage job would pay $458.45.)

The most important benefit program is the DI program followed by SSI and employer-based benefits. Medical benefits are important but exact programs are not specified. Some benefits are received by 50 people for payment of doctor, dentist, or hospital bills; 19 people receive Medicaid and only six received Medicare. (Clients may not be able to distinguish among these programs since 46 people receive DI for an average of 24 months and possibly more than six of them should be receiving Medicare.)

As for in-kind benefits, other than medical care, the food stamp program is the only quantitatively important program. That is not to say that significant disincentive effects may not be present for any one family by reason of the receipt of in-kind benefits from rent supplements, educational supplements, job training or the miscellaneous type of social services. In the aggregate, however, they do not seem to loom large. We are left with DI, SSI programs, food stamps and the associated medical benefits to which a person might be entitled.

It is legitimate to ask whether we are going to get any significant results from this experiment. The project leaders are going to be handicapped by the small sample. The insights to be gained

from a study of this sort might derive largely from the opportunity to interview people in depth, and to supplement that information with the actual case records. The cell numbers are going to become small as the sample is divided and subdivided, but nonetheless some of the insights promise to be interesting. The West Virginia group is cooperating with the Alabama R&T Center and it is that research to which we next turn.

The Alabama Incentive Study

The Alabama researchers use RSA, R-300 data derived from the forms filled out by the vocational rehabilitation agency on each closed case. They drew a 15 percent sample from among cases served by the general vocational rehabilitation agencies. That sample included Status 26 closures, rehabilitated, and Status 28 and 30 closures, nonrehabilitated. From these 65,000 cases, they selected a beneficiary subset which included all clients receiving SSI or DI benefits at time of closure. It consisted of 4,084 rehabilitated and 3,259 nonrehabilitated recipients of these disability related benefits.

From the R-300 form, they recorded characteristics of the client at the time of referral and acceptance, something of the vocational rehabilitation process and the characteristics of the clients at closure. Profiles of both rehabilitated and nonrehabilitated clients were developed for both the total client sample and the beneficiary subset (University of Alabama Medical Rehabilitation Research and Training Center, 1978). The idea was to determine significant differences in the characteristics of the two populations, rehabilitated clients and nonrehabilitated clients.

Three entry variables were found to distinguish these two groups. They were the major disabling condition, the work status at entry, and the source of referral. The rehabilitation process variables, i.e. time in rehabilitation, cost and type of services provided were generally poor predictors of closure status, the exception being the number of services received and the agency provision of restoration services and adjustment training.

An analysis was also made of the two nonrehabilitated groups, those closures occurring prior to plan and those closed following the initiation of the individualized written rehabilitation plan. They differed on the basis of family income, primary source of support and source of referral to the rehabilitation agencies.

Our primary interest is in the findings of the Alabama group with respect to disincentives. As they point out, there has been a good deal of discussion of disincentives, but it is their belief that the evidence supporting the relationship between disability benefits and nonrehabilitation is quite limited. Typically, the evidence offered is anecdotal in character, with reference made to a specific individual, or small number of individuals, receiving substantial benefits ad for whom return to the labor force would result in financial loss. While such anecdotal accounts may indicate the existence of a problem, they fail to provide any quantitative indication of the magnitude and scope of the disincentive to rehabilitation associated with disability benefits (University of Alabama Medical Rehabilitation Research and Training Center, 1978, p. 20).

The study methodology compared the vocational rehabilitation clients of differing beneficiary status on two measures of rehabilitation success: the proportion of clients closed rehabilitated, and the work status of rehabilitated clients at case closure.

The findings were that among the 7,343 beneficiaries, 55.6 percent were

rehabilitated, whereas among the 54,911 non-beneficiaries, 71.4 percent were rehabilitated. It was recognized that the comparisons between beneficiaries and nonbeneficiaries may overestimate the disincentive effect since the two groups are not identical insofar as severity of disabilities are concerned. It was assumed that those in beneficiary status were severely disabled, by definition, whereas only a minority of the nonbeneficiaries were so classified. Comparing the outcomes of severely disabled beneficiaries and nonbeneficiaries still revealed differences. For every 100 nonbeneficiaries who were rehabilitated, only 78 beneficiaries were rehabilitated.

It is not enough to look at the rehabilitation outcomes. About one third of the beneficiaries are rehabilitated to some status other than that of a wage or salaried worker. That is they are rehabilitated as homemakers or unpaid family workers, whereas less than 15 percent of the nonbeneficiaries are closed out in that status. About 61 percent of the beneficiaries are closed out as wage or salary workers; a figure a good deal less than the 83 percent of the nonbeneficiaries. Nearly one third of those who are closed out as being employed are employed in sheltered workshops. That goes a long way towards explaining why they do not leave the disability benefit rolls.

As the report puts it, as a group, the severely disabled clients are less likely to be rehabilitated and benefit recipients are considerably less likely to be rehabilitated than any other severely disabled clients. Once they are rehabilitated, they are less likely to end up in the competitive labor market and presumably less likely to end up at a wage which would allow them to leave the rolls of the disability benefit programs.

According to the report, future research ought to be undertaken on correlates of rehabilitation outcomes, emphasizing the disability type, work and economic status, source of referrals and interaction with beneficiary status (Better, 1979).

A second phase of the project will involve interviews with samples of former clients and rehabilitation counselors to elicit their perception of rehabilitation disincentives. The role of disability benefits, as well as other factors likely to affect the probability of successfully rehabilitating SSI and DI beneficiaries will be examined (Fowler and Mayfield, 1969; Blum, 1976; Grigg, Holtmann and Martin, 1969; Micek and Better, 1974; Nagi 1969; Kunce, 1972; Muthard, Hamilton, Crocker and Morris, 1976; and Nagi and Reilly, 1968).

The Alabama study should add to our knowledge of what goes on in the rehabilitation process itself and the effect of the counselor client relationship on disincentives. For a good bit of the research that has been done in this area, rehabilitation is perceived as a type of black box in which clients enter one end and come out the other. The attempt has been to correlate outcomes only with those variables which can be quantified, and which are reported as program data, or as derived from survey responses. It will be interesting to look at a more intensive examination of the counselor-client relationship, the characteristics of the counselors, together with the perception of both the client and the counselor as to the deterents to successful rehabilitation outcome.

Although the project authors do look at some demographic and condition variables to predict rehabilitation success, it should be said that there is an extensive literature on the correlates of success and the prediction of outcomes in rehabilitation. We do not review the literature here but can refer the reader to an analysis of 75 studies

in the area undertaken from the point of view of evaluating the research. In general, the analysis shows that in some rehabilitation settings, investigators have been quite successful in their attempts to differentiate between rehabilitants and nonrehabilitants.

The outcome prediction studies embrace a wide variety of outcomes other than rehabilitation and nonrehabilitation. If we look at those that try to correlate success with rehabilitation, we find that the characteristics often cited as being correlated with success are age (younger), race (white), education (higher), and marital status (married). It is not surprising that these variables are also significant in studies of labor force participation since employment is a common measure of rehabilitation program success (Berkowitz, Englander, Rubin and Worrall, 1975).

The Beneficiary Rehabilitation Program

Each year Congress appropriates a percentage of the DI trust fund to finance the rehabilitation of those persons who are receiving DI benefits—the BRP program. Whereas 80 percent of the funds in the basic joint federal-state rehabilitation program are from the federal government and 20 percent from the states, 100 percent of the funds for the beneficiaries' rehabilitation comes from federal funds.

The material that follows is from a study which the author and his colleagues have made of the Beneficiary Rehabilitation Program (Berkowitz, Horning, McConnell, Rubin, and Worrall, 1980). It attempted to determine whether the program was cost beneficial or not and to suggest alternative methods of financing the program. However, the study can shed some light on the disincentive problem.

Statistical trends of the BRP: The amounts allocated for the rehabilitation of beneficiaries were originally fixed at 1 percent of the prior year's DI payments. In response to an encouraging start by the program, the maximum was increased to 1.25 percent in 1973 and 1.50 percent in 1974. That increase, together with the explosive growth in DI cash benefit payments as the number of beneficiaries grew, greatly increased the amounts available for vocational rehabilitation. By fiscal year 1976, the amount had reached $102.6 million, a staggering increase of over 230 percent in the dollar size of the program since 1972.

The beneficiary program became a more important part of the general vocational rehabilitation program. In the first six years of operation, BRP expenditures averaged less than 4 percent of total vocational rehabilitation expenditures. Since 1972, the relative share has increased dramatically reaching 9.2 percent in fiscal year 1976.

The number of clients served in 1970 was 29,601, about 3.4 percent of the total count. By 1976, the number had increased to more than 88,449 or 7 percent of the total count. The number of rehabilitations, however, did not increase as dramatically and actually showed a decline after 1973 when the emphasis shifted in the general program to the severely handicapped.

It may seem strange that an emphasis on the severely handicapped would mean a diminution in the number of rehabilitations in the BRP, but it can at least be surmised that emphasis on the severely handicapped in the general program meant less of an emphasis on the traditional goal of reemployment in the competitive labor market which remains the only closure status which will remove persons from beneficiary status. That change in emphasis may

have accounted for the decline in the BRP rehabilitations. In any event, average rehabilitation costs did not decline. BRP expenditures increased in almost direct proportion to the increase in the number of clients served, but the increase in expenditures did not bring a comparable change in the number of rehabilitations. As a result, the cost per rehabilitation rose rapidly.

Evaluations of the program: The first evaluation of the BRP appeared in a series of memoranda written by the Social Security Administration (SSA) Actuary (Bayo, 1969; Myers, 1969; Merriam, 1969; and Popick, 1969). The main conclusion was that the program was not paying for itself; although, it was recognized that it was still young and sufficient time had not elapsed for those people who were in the "pipeline" to move on to rehabilitation and termination.

Subsequent studies reported benefit-cost ratios above 1, with the Office of the Actuary estimating the benefit-cost ratio for the program through fiscal year 1970 at 1.60 and with a slightly higher number being reported for the following year. However, on May 13, 1976, the Comptroller General released the results of an independent study and appended his policy recommendations (Comptroller General Report to the United States, 1976). That report found the benefit-cost ratio to be only slightly above 1, and it may have been influential in the decision to freeze and eventually reduce the level of program funding. There are several shortcomings in the GAO sample and the subsequent determination of trust fund savings. The problem is that some cases are charged to the DI trust fund which probably ought not to be and conversely some BRP cases are inappropriately charged to the basic federal-state program. This is a problem encountered in any estimation of the worthwhileness of the program.

In a Rutgers study we selected all cases with a rehabilitation closure year earlier than or equal to 1973, and included those cases which had a termination year of 1973 or earlier regardless of closure year. The total number of terminations using these selection criteria was 15,079. Going back as far as 1973 allowed time to elapse so that persons who had been rehabilitated could find their way into the job market.

Something of the results of that study can be seen in Table 4 which shows the savings that occur to the trust fund by reason of these rehabilitations. We found that the program, after making all of the necessary assumptions and making the best judgments we could about which cases should be assigned to the program, had a benefit-cost ratio above 1. It is obvious that it was difficult to come to a definitve figure, in part because the management information system was such that it was not always easy to determine the cases that ought to be included or excluded from the sample.

It was felt that one approach to improving the program would be to come up with an alternative financing scheme. Rather than merely allocating the funds to the states on the basis of the number of DI beneficiaries in that state, our recommendations were that allotments be determined on the basis of the states' experience with rehabilitation at closure wages above the SGA level. We suggested using not the criteria of rehabilitations to the competitive labor market, but only those cases that are rehabilitated at a sum equal to or greater than that which is set for the level of substantial gainful activity. That suggestion has been approved by the Rehabilitation Services Administration.

All of this serves to emphasize that "success" in rehabilitation of bene-

Table 4
Present Value of Savings and Costs
Closure Year 1973 or Earlier

Fiscal Year	Present Value of Recidivist Savings*	Present Value of Termination Savings**	Total Savings Present Value	Present Value of Costs *** (000)
1967	$ 48,873	$ 1,080.314	$ 1,129,187	$ 9,231
1968	208,844	6,780,308	6,989,152	14,231
1969	947,309	18,131,612	19,078,921	14,741
1970	1,802,704	19,279,857	21,082,561	16,621
1971	2,315,680	18,848,452	21,164,132	18,215
1972	2,414,775	22,381,303	24,796,078	21,411
1973	2,410,462	19,477,613	21,888,075	28,552
1974	1,940,426	16,338,997	18,279,423	
1975	830,900	7,732,580	8,563,480	
1976	71,639	1,186,879	1,258,518	
	13,456,937****	131,237,915	144,694.852****	123,502

* Assumes that all recidivists were eligible for the program.

** Assumes that 38% of the terminations were eligible and that they accounted for 39.7% of the benefits.

*** Includes $500 for 1966. The present value of costs represents the amount of money which would have had to be in the trust fund on July 1, 1966, in order to pay for the expenses incurred in the year of rehabilitation of disabled beneficiaries if the trust fund interest accrues at 6% per year.

**** Includes $465,325 for double termination.

Source: Berkowitz, Monroe, Martin Horning, Stephen McConnell, Jeffrey Rubin and John D. Worrall, "An Economic Evaluation of the Beneficiary Rehabilitation Program," in Jeffrey Rubin, ed., *Alternatives in Rehabilitating the Handicapped: A Policy Analysis.* New York, Human Sciences Press, 1980

ficiaries depends on having that person leave the DI rolls. As with many other disability programs, the DI program presents a classical dilemma. Up to the point where an applicant gains admission to the program, all of his incentives are to maximize the extent of his physical and mental disabilities in order to qualify for benefits. Yet, the whole purpose of the BRP is to emphasize the client's residual capabilities so that he can leave the rolls and return to the labor force.

Counselors recognize that BRP clients may be more difficult to help than people in the regular program who once rehabilitated, may be left to pursue their own goals. In the BRP, the counselors must also be concerned with whether or not the rehabilitated person terminates, and termination is a function of variables over which the rehabilitation counselor may not have full control.

For that reason, the method of selecting clients for the BRP becomes a very important matter. Who should be admitted? How should they be selected?

The traditional four selection criteria may not give sufficient guidance. The first of these so-called special selection criteria screens in beneficiaries who are severely disabled but whose disability is not so rapidly progressive as to outrun the effects of the rehabilitation services or preclude restoration of productive activity. That criteria poses few problems.

The second special selection criteria requires that the disability be expected to remain at a level of severity which will result in continuing payment of disability benefits. In short, the applicant is not expected to recover spontaneously. The real problem in applying this criteria, as the GAO reports have found, is that vocational rehabilitation services have been taking credit for cases that would have terminated even without their services. After inquiry, the Rutgers study concluded that a reasonable solution would be that vocational rehabilitation personnel ought not be required to make decisions about the applicability of the second criteria. That might be done by the disability determination service unit in the state or by the BRP unit within the Social Security Administration.

Special selection criteria 3 and 4 are quite different since the expertise of the vocational rehabilitation counselor comes into play in making these decisions. Special selection criterion 3 requires that there be a reasonable expectation that providing the VR service will result in restoration of the individual to productive activity and criterion 4 requires a type of individual benefit-cost analysis. The predictable period of productive work should be long enough so that benefits will outweigh the cost of the planned services. For that to be operative, it is necessary to know how different client characteristics relate to success.

Correlates of success revisited: The Rutgers study reviewed the records of 8,286 beneficiaries who were closed rehabilitated in fiscal year 1973. Of that group, 2,938 individuals or approximately 35 percent of those rehabilitated in fiscal year 1973, left the DI rolls at least once by January 1977.

As it might be expected, age is one of the factors associated with termination. The available data indicate that the likelihood of termination decreases the older the rehabilitant. Over 40 percent of the rehabilitants in the prime age group 25-34 terminate, and more than one third of those in the 35-44 years age group also leave the rolls. In contrast, only 14 percent of those age 55-64 terminate.

Education, another characteristic known to the counselor at the time of

referral, is significant. Those with lower education tend to terminate at significantly lower rates.

The probability of termination is not significantly affected by race. Sex is an important factor because of the historically stronger attachment of the male to the labor force. However, there is no serious consideration of using sex as a selection factor because of the possibility of violating antidiscrimination laws. Also these data are for 1973, and as the female labor force participation rate increases, it is likely that sex will become less of a factor.

BRP recipients who are married have only a slightly higher termination rate than the unmarried rehabilitants. This is contrary to findings in labor supply studies. However, married persons are also offered dependents' benefits and the consequent higher benefit levels may counteract incentives to terminate.

As we have indicated above, rehabilitation is not tantamount to termination, and the important variable may be the "quality" of the rehabilitation resulting from the services received. The Rutgers study used the wage of the individual at closure as a measure of the quality. Probably there are much better measures, but we were constrained by the data source to use the closure wage. It is the wage received by the client for a job held for the first 60 days. We have no information regarding the rehabilitants' continued job status.

A necessary condition for termination (absent spontaneous medical recovery) is that monthly earnings equal or exceed SGA levels. In 1973, SGA levels were $149 a month or roughly $32 a week. A small percentage of rehabilitants who leave the rolls were closed at a wage less than SGA as shown in Table 5. These could be cases for which termination was the result of medical recovery, or the closure wage could have increased as the rehabilitant located a different job paying a wage greater than SGA. Nonetheless, most terminated individuals are rehabilitated at wages above the SGA level. Some of those may not have been capable of sustaining work effort for long durations and were forced to leave the job. Others may have decided to alter their labor market behavior so as to continue to receive benefits.

In Table 5 the reported wage is divided by the actual benefit to arrive at a wage-benefit ratio. As expected, and as shown by Table 6, termination rates increase with increases in the wage-benefit ratio. If that ratio is less than 1 termination rates are comparatively low. Once the benefit ratio equals or exceeds 1, the rate of termination increases dramatically. The conclusion, as expected, is that it is not enough to rehabilitate a person, she/he must also be closed at a wage which is not only greater than the SGA level but also equal to, or greater than his/her individual monthly benefit payments. The counselor who fails to close out cases at wages comparable to benefit levels is fighting a losing battle if the objective is termination.

The difficulty is that an individual comes with all of his demographic and human capital variables. The family group as well as the individual must be considered. Consequently, we should consider all of these factors, together and not separately. One way to do this is with a linear regression model. We ran one such model and the results are presented in Table 7.

As an example, to show how such a model can be used; if a person is a white male BRP rehabilitant, married, if three years elapsed from onset to closure, if he was in the rehabilitation process for 10 months, and if his wage-benefit ratio is 1, then the probability of his terminating from the DI rolls would be 42

Table 5
Wages at Closure and Rate of Termination

Weekly Wage at Closure	Category Total[1]	Nonterminations	Terminations[2]	Rate of Terminations
$ 0	2,104 (25.1)	2,006	98	4.7
1-16	486 (5.8)	466	20	4.1
17-32	713 (8.5)	636	77	10.8
33-48	467 (5.6)	350	117	25.1
49-64	574 (6.8)	373	201	35.0
65-80	861 (10.3)	428	433	50.3
81-96	493 (5.9)	207	286	58.0
97-112	759 (9.1)	319	440	58.0
113-128	498 (5.9)	198	300	60.2
129-144	301 (3.6)	102	199	66.1
145-160	392 (4.7)	140	252	64.3
161-176	170 (2.0)	40	130	76.5
177-192	124 (1.5)	40	84	67.7
193+	444 (5.3)	143	301	67.8
Column Total	8,386 (100.0)	5,448 (65.0)	2,938 (35.0)	

[1]Percentage figures are in parenthesis.

[2]Terminations include only those 1973 BRP rehabilitants with an MBR and an R 300 record with appropriate entries for the variables used who left the DI beneficiary rolls because of recovery for any duration during the period July 1972 to January 1977.

Source: 1973 SRS-RSA R 300 Tape and SSA Master Beneficiary Record.

Table 6
Wage/Benefit Ratio and the Rate of Termination

Wage/ Benefit Ratio	Category Total[1]	Nontermi-nations	Termi-nations[2]	Rate of Terminations
0.00-0.25	2,342 (27.9)	2,239	103	4.4
0.25-0.50	525 (6.3)	452	73	13.9
0.51-0.75	463 (5.5)	360	103	22.2
0.76-1.00	513 (6.1)	305	208	40.5
1.01-1.25	511 (6.1)	252	259	50.7
1.26-1.50	506 (6.0)	235	271	53.6
1.51-1.75	468 (5.6)	179	289	61.8
1.76-2.00	365 (4.4)	129	236	64.7
Greater than 2.00	1,653 (19.7)	503	1,150	69.6
Insufficient data	1,040 (12.4)	794	246	23.7
	8,386 (100.0)	5,448 (65.0)	2,938 (35.0)	

[1]Percentage figures are in parenthesis

[2]Terminations include only those 1973 BRP rehabilitants with both an MBR and a R 300 record with appropriate entries for the variables used who left the DI beneficiary rolls because of recovery for any duration during the period July 1972 to January 1977.

Source: 1973 SRS-RSA R 300 Tape and SSA Master Beneficiary Record.

Table 7

Probability of Termination Regression Results White Male Cohort of 1973 BRP Rehabilitants[1]

Variable	B Coefficient (Stand. Error)	F-Value
Constant[2]	.2943713	
Age 55-64	-.2059296 (.02135)	93.033
Age 45-54	-.0809262 (.01687)	23.024
Age 25-34	.0875841 (.01745)	25.205
Age 14-24	.1078082 (.02188)	24.270
College degree	.0710894 (.03642)	3.809
1-3 years of college	.0325701 (.02602)	1.557
High school graduate	.0768176 (.01981)	15.038
1-3 years of high school	.014343 1 (.02068)	0.481
8 years of elementary	-.0056515 (.02365)	0.057
Married	.0492536 (.01489)	10.947
Visual impairment	-.0856049 (.02339)	13.390
Hearing impairment	-.0962519 (.04397)	4.791
Orthopedic impairment	.0281692 (.01632)	2.979
Amputation	.0067204 (.02748)	0.060
Mental disorder	-.0854813 (.02339)	13.357
Mental retardation	-.0468561 (.04885)	0.920
Years from onset to closure	-.0064693 (.00044)	212.331
Months from referral to closure	-.0011450 (.00032)	12.841
Wage/benefit ratio	.1083091 (.00392)	764.962

[1]Terminations include only those 1973 BRP rehabilitants with both an MBR and an R 300 record with appropriate entries for the variables used who left the DI beneficiary rolls because of recovery for any duration during the period July 1972 to January 1977.

[2]The constant captures the combined effect of three nonspecified dummy variables in the probability of termination. The variables are: age 35-44, 0-7 years of elementary school, and the disability classification for which the etiology is not known or not appropriate.

Source: Berkowitz, Monroe, Martin Horning, Stephen McConnell, Jeffrey Rubin and John D. Worrall, "An Economic Evaluation of the Beneficiary Rehabilitation Program," in Jeffrey Rubin, ed., *Alternatives in Rehabilitating the Handicapped: A Policy Analysis*. New York, Human Sciences Press, 1980.

Table 8

Probability of Termination Regression Results White Male Cohort of 1973 BRP Rehabilitants[1]

Variable	Those With Wage/Benefit Ratios of Less Than One: B Coefficient (Stand. Error)	F-Value	Those With Wage/Benefit Ratios Equal To or Greater Than One: B Coefficient (Stand. Error)	F-Value
Constant[2]	.0798911		.5213107	
Age 55-64	-.0976900 (.02063)	22.433	-.2204099 (.03731)	34.907
Age 45-64	-.0581019 (.01762)	10.868	-.0453020 (.02547)	3.162
Age 25-34	.0702263 (.01965)	12.773	.0389751 (.02471)	2.482
Age 14-24	.0575174 (.02864)	4.034	.1034945 (.02875)	12.959
College degree	.0976933 (.03949)	6.120	.0638810 (.05345)	1.429
1-3 years of college	-.0459096 (.02904)	2.499	.0736811 (.03801)	3.758
High school graduate	.0211751 (.02024)	1.094	.0956540 (.03106)	9.485
1-3 years of high school	-.0255230 (.02102)	1.474	.0445341 (.03255)	1.872
8 years of elementary	-.0086072 (.02359)	0.133	.0147545 (.03771)	0.153
Married	.0518518 (.01688)	9.431	.0831776 (.02081)	15.969
Visual impairment	-.0790213 (.02404)	10.805	-.0521420 (.03605)	2.092
Hearing impairment	-.0631094 (.04660)	1.827	-.0998160 (.06506)	2.354
Orthopedic impairment	.0204427 (.01965)	1.341	.0565990 (.02371)	5.696
Amputation	-.0067797 (.02909)	0.054	.0658036 (.04092)	2.586
Mental disorder	-.0455479 (.02507)	3.300	-.0985053 (.03433)	8.233
Mental retardation	-.0661832 (.04752)	1.940	-.1088044 (.08300)	1.718
Years from onset to closure	-.0031035 (.00046)	45.468	-.0097732 (.00069)	201.844
Months from referral to closure	-.0012636 (.00035)	12.827	.0026601 (.00046)	0.337
Wage/benefit ratio	.4333570 (.01993)	472.740	.0236662 (.00534)	19.677

[1]Terminations include only those 1973 BRP rehabilitants with both an MBR and an R 300 record with appropriate entries for the variables used who left the DI beneficiary rolls because of recovery for any duration during the period July 1977 to January 1978.

[2]The constant captures the combined effect of three nonspecified dummy variables in the probability of termination. Those variables are: age 35-44, 0-7 years of elementary school, and the disability classification for which the etiology is not known or not appropriate.

Source: Berkowitz, Monroe, Martin Horning, Stephen McConnell, Jeffrey Rubin and John D. Worrall, "An Economic Evaluation of the Beneficiary Rehabilitation Program," In Jeffrey Rubin, ed., *Alternatives in Rehabilitating the Handicapped: A Policy Analysis*. New York, Human Sciences Press, 1980.

percent.[4] If, however, the rehabilitant is older, say between 55 and 64, we would subtract from the 42 percent the absolute value of the coefficient for the 55 to 64 year age group which is 21 percent. So the rehabilitant in the older age group with these same characteristics has only a 21 percent chance of terminating.

It is probable, however, that there is not any linear relationship between the probability of termination and the wage-benefit ratio. To overcome that problem, we subdivided the sample into those receiving a closure wage less than their benefits and those receiving a closure wage greater than their benefits. The results are presented in Table 8 of the report. The most significant changes are in reference to the wage-benefit ratio itself. Increases in the wage-benefit ratio up to a value of 1 improve greatly the chances that an individual will terminate, but beyond that level, further improvements have a much smaller effect.

Disincentives and the SGA limit: In presenting further results of the study we recognize that we are moving into an analysis of the suggestions that have been made to remove some of the disincentives effects. Nonetheless, these results are an integral part of the study and this may be a good place to deal with them.

The first of these has to do with disincentives and the SGA limit. The beneficiaries of the DI program form a continuum of cases extending from the so-called diaried cases, who are expected to recover medically after some period of time, to the most severely disabled who are incapable of any work effort that will command a wage in the competitive labor market. Between these two extremes are individuals with varying degrees of ability to particpate in the labor force, and these people are part of the group for whom the questions of disincentives are most relevant.

The sample of fiscal year 1973 rehabilitants we have been using are persons who have been rehabilitated and hence have demonstrated an ability to work at a job for at least 60 days. (Bear in mind that in order to qualify for trust fund financing, these people must be expected to be rehabilitated into the competitive labor market.) Consequently, those closed in homemaker status, or those closed in independent living status should not be included in this group. The sample constitutes a group for whom the question of disincentives is most relevant, and one for which we can evaluate SGA levels and work disincentives.

The SGA limit serves two related purposes. It is used to determine who is eligible for DI benefits, and it distinguishes those DI beneficiaries who are continuing disability cases, from those who are not (Franklin and Hennessey, 1979).

It is difficult to specify empirically the aggregate disincentive effects of the SGA limit; yet from our data we do have information on earnings of recipients. We know that in 1976, 24.4 percent of the BRP rehabilitants who had not terminated as of January 1977 participated to some degree in the labor market. It is that group with their double status as wage earners and beneficiaries who are of particular interest. The fact that they show themselves capable of some labor-force participation invites us to ask why they had not terminated. Two explanations are possible: one, the extent of their impairment makes them incapable of earning more than the SGA amount, or two, they were capable of earning more than the SGA but reasoned that they would suffer a net loss of income if they did so.

That, of course, is the crux of the disincentives issue and we cannot pretend that we have any magic way to separate the two groups to determine the answers to these questions. Nonetheless, we know something about the productive capacity of these nonterminees in the sense that we know their wage at closure. Most rehabilitants have only begun their trial work period at the time of closure, and, therefore, they are not under any constraints to limit their income. We can reasonably conclude that those terminees who earned a wage at closure under SGA would not likely be voluntarily restricting their earnings in subsequent years to avoid exceeding the SGA limit.

The statistics bear this out. Of the 3,667 nonterminated rehabilitants closed at a wage less than the 1974 SGA figure ($200.00 a month), only 519, or less than 15 percent, had any earnings in 1976. Possibly these persons are not working because of the severity of their condition and not the disincentive effect of the SGA.

What of those people who were closed at a wage which exceeded SGA? There were 2,394 nonterminated rehabilitants closed at a wage which exceeded SGA levels. Of these, about 40 percent were participating in the labor market to some degree in 1976. We might infer that for some of these persons SGA did act as a work disincentive. On the basis of the data, we cannot reject the hypothesis that some individuals are capable of earning enough income to leave the rolls, but chose instead to use the SGA provision as a limit on the income they can earn to maintain their benefit status.

As we shall see, several proposals have been made to change the SGA limit and the method in which it is used. The GAO has argued for an increase in the SGA limit, claiming that the low level of income made the transition difficult for a beneficiary moving from a benefit to a work status. Although raising the SGA limit permits the beneficiary to better test his chances of taking his place as a permanent participant in the labor force before terminating, any increase may also have a disincentive effect. This is particularly true for those marginal cases whose decision to terminate under the old limit would only be reached after some deliberation. The individual who would refuse benefits and choose to depend solely on his or her earnings at a SGA limit of $280 may now find it economically advantageous to remain on the rolls at a new SGA limit of $320. On balance, an increase in the SGA limit may not provide any incentive to leave the rolls.

Two qualifications are necessary. First, creating the opportunity for some beneficiaries to participate more fully without losing their benefits may aid their rehabilitation and provide them with confidence to terminate eventually. Second, with the experience of greater participation in the labor market, beneficiaries who do eventually terminate may have a lower rate of recidivism. These are both speculations and can only be tested with more experience.

Partial disability and the notch effect: Another proposal that has been made involves eliminating the so-called notch effect. SSI beneficiaries who earn more than the SGA levels and are terminated lose all of their benefits. It has been proposed to adopt a benefit payment method similar to the retirement test, where earnings above the SGA level would be taxed at a marginal rate of 50 percent. Every $2.00 earned over the SGA limit would result in the reduction of benefits by $1.00.

There are several objections to that

type of proposal. One is that people who terminate may find it worthwhile to reapply and return to the rolls in order to receive partial benefits. However, a more fundamental objection is that this method of paying benefits contradicts the rationale for a DI program. At present, the program is designed to pay benefits to those who have been determined to be totally disabled. The whole concept of the program would be changed with the adoption of a variant of the retirement test, and we would be moving towards a system of payment for partial disability.

Trial work periods and replacement rate: Another change proposed has to do with a trial work period. A trial work period is designed as an incentive provision and changes have been proposed to help strengthen its purpose. One possibility is simply to increase the duration of the trial work period. As an alternative to raising the SGA limit, extending the trial work period has one important advantage; it should not decrease the number of beneficiaries eventually terminating.

Another proposed change in the trial period entails increasing the amount one can earn per month. With a higher limit triggering the trial work period one would expect beneficiaries to emerge from the trial work experience with greater confidence and better job qualifications. The net effect might be some higher rates of termination.

Another area for possible reform has to do with the levels of replacement rates (the proportions of former wages paid as benefits), which tend to be high for younger persons. However, the Rutgers study concludes that replacement rates may be most useful in determining the disincentive effect of participating in the labor force or going on the rolls at the time of onset of disability. They may be less relevant for determining whether someone terminates or not.

Conclusions: The regression results suggest the obvious method for reducing work and termination disincentives is to increase the wage-benefit ratio. Although that could be achieved by lowering benefits, the opposition would be great on equity grounds. Improving the wages can be achieved by liberalizing the provisions of the trial work period, by improving the performance of rehabilitation counselors, and by a long term strategy of making the labor market more receptive to the rehabilitated population. Such a strategy could be implemented in two ways: first, by selection and rehabilitation of those DI beneficiaries who have the greatest probability of termination, and second, by strong enforcement of Section 503 and 504 of the 1973 Rehabilitation Act which requires affirmative action and nondiscrimination in the employment of handicapped individuals.

The BRP program is fairly new, and one can look at the past decade of its existence as a kind of experimental period in which the BRP has demonstrated that it can terminate beneficiaries without loss to the DI trust fund. The Rutgers study concluded that the program could be made more efficient. The adjustments recommended include reforms in the program's management, financing and monitoring. A central unit within SSA could be solely responsible for BRP activities, and a management information system could be developed to produce accurate data on the program's performance. Data could be fed back to the counselors to improve the efficiency of the selection criteria and a financing scheme based upon savings to the trust fund and state by state results could be implemented to ensure the independence and the solvency of the program. Finally, further research was recommended in the form of experiments to identify ways and means of increasing the rate of termi-

nation of DI beneficiaries. Implementation of those recommendations, the Rutgers group thought, could bring about maturation of the BRP into an even more productive feature of the DI system.

GAO Report on the SSI Program

Just as the BRP program provides for 100 percent financing for rehabilitation of DI beneficiaries, the Social Security Amendments of 1972 authorized the use of federal funds to pay for the states' cost of vocational rehabilitation services for the blind and disabled SSI recipients.

The GAO reviewed a sample of 544 cases from 14 state agencies in 8 states. These were cases closed as successful rehabilitations between January 1, 1974, and June 30, 1976. According to the GAO (Report of the Comptroller General of the United States, 1979), the analysis showed that federal funds spent for rehabilitation in 13 of the 14 agencies greatly exceeded reductions in the SSI payments. In 55 percent of the cases, no reductions were attributable to a beneficiary's increase in earned income as of June 1977.

The GAO report criticized the program's management, divided as it is between rehabilitation agencies and the social security administration. The GAO recommended that the Secretary of HEW designate a single entity to oversee the SSI Vocational Rehabilitation Program management activities.

The Commissioners of the Rehabilitation Services Administration and the SSA should finalize an agreement identifying the responsibility of each agency. The GAO called attention to the fact that the Rehabilitation Act of 1973 mandates VR agencies to serve first those with the most severe handicap and that SSI recipients are one of the highest priority groups to receive rehabilitation services under the basic program. Its sample of 544 cases included 200 persons who were accepted for services by the basic program before the start of the separate SSI VR program.

It noted, that unlike the BRP, the 1972 amendments do not specifically require the program to provide benefit payment reductions equal to, or greater than, the cost of rehabilitation services. It recommended that savings to benefit payments exceeding federal funds spent for rehabilitation should be a primary goal. If, after sufficient time has passed, that result does not come about, it recommended that congress pass legislation to eliminate the SSI/VB program, and instead, to earmark funds under the basic program for eligible SSI persons. Alternatively, it recommended that the program continue with funding levels based upon the demonstrated effectiveness of each state's program as measured by the extent by which benefit payment reductions exceed federal funds spent.

Effect of Substantial Gainful Activity Level on Disabled Beneficiary Work Patterns—A Further Look

Paula A. Franklin and John C. Hennessey have analyzed the effect of SGA levels on work patterns (Franklin and Hennessey, 1979). The authors analyzed disabled beneficiaries earnings records from the 1 percent continuous work history sample over a 15 year period during which the SGA level increased dramatically. Periodic adjustments have been made as prices and wages have increased. Increases in the SGA levels were not followed by incremental increases in beneficiary earnings.

Recovery rates dropped steadily during the late 1960's and 1970's; undoubtedly, one of the factors which has given rise to the recent interest in work incentives. The proportion of beneficiaries leaving the rolls because of medical recovery or their regained ability to earn above the SGA level fell from 2.7-3.2 percent during the years 1967-1971 to 1.5-2.2 percent in 1972-1976. About 10 percent of the beneficiaries were employed and about 3 percent had earnings above the SGA level. Median annual earnings remained well below $1,000, whatever the SGA level. They conclude that the SGA level has not operated as an effective work incentive.

The authors raise questions of consistency and equity regarding the difference in earnings criteria for disabled recipients and those who are retired. The annual exempt amount of earnings for aged beneficiaries was $4,000 in 1978 and is scheduled to rise in $500 increments to $6,000 by 1982. Earnings limits for retired recipients are becoming increasingly different from those for the severely and chronically ill.

As we have already said, however, the program rationales are different. Increasing the SGA levels for disabled recipients to make them comparable to the earnings levels permitted for retired workers would probably change the disability program into one which compensates people for partial rather than total disability.

As the authors recognize, raising the SGA level would increase program costs by enlarging the size of the eligible population and by reducing the number of people whose benefits could be terminated. In their view, recovery for work is sharply limited by the original eligibility requirements which assure that beneficiaries suffer from severe and chronic illness that drastically affect earning capacity. Benefit terminations caused by recovery, either medical or sustained employment above SGA levels, are miniscule compared with the number of beneficiaries coming on the rolls. There seems to be some room for improvement in the recovery rates of working beneficiaries, but any expectation of substantially reducing the programs' size by means of work incentives "is placed in sobering perspective by the very low rate of benefit terminations for recovery among those who had sustained work while still beneficiaries" (Franklin and Hennessey, 1979).

The Disability Beneficiary Studies

OMB and CBO analyses: The rising number of people on disability insurance rolls up until 1978 has led to several analyses. A study by the Office of Management and Budget has analyzed the sources of the programs' growth and pointed out some of the problems that are involved in the definitions of disability, the earnings test, benefit levels and replacement rates (Sunshine, 1979).

The Congressional Budget Office has issued a series of memorandums examining the growth in the DI program (Korbel, 1978). Korbel attributes changes in the DI program to several factors including the legislation, the administrative structure, the impact of general economic conditions, demographic changes and work disincentives. As he points out, what has been extremely worrisome to the administrators of the program has been that not only have the average number of disabled worker beneficiaries grown, from somewhat less than a million and a half workers in 1970 to over two and a half million in 1977, but the number of terminations due to recovery has hard-

ly kept pace. In 1970, a high point of 40,802 workers recovered, but since 1970, the termination rate due to recovery declined from 27.9 per thousand to a low of 15.4 per thousand in 1976 and then rose to 21.7 by 1977. With the exception of 1977, termination rates due to recovery steadily declined during the period. That has been attributed to the ineffective rehabilitation program and the financial disincentives in the DI program (Korbel, 1978).

The Treitel study: Ralph Treitel has examined in detail the recovery of disabled beneficiaries in a 1975 follow-up study of the 1972 allowances (Treitel, 1979). As Treitel points out, the number of new claimants has risen rapidly; whereas the number of people leaving the rolls through recovery has remained at about 40,000 annually.

In the past decade, the number of new claimants has risen from about 300,000 to more than 600,000 a year. The actual number of new benefits awards during the year 1970 was 350,000 and that rose to a peak of 592,000 in 1975, declined to 552,000 in 1976 and increased slightly to 569,000 in 1977. However, the number of new benefit awards during 1978 declined to 457,451 (*Social Security Bulletin,* 1979).

Treitel notes that concern has been expressed about economic disincentives that inhibit recently disabled workers from making efforts to return to work after they begin drawing benefits. Treitel traces benefit and earnings data (for a 1972 sample of 413,000 disabled worker beneficiaries) through 1975.[5] The characteristics of those who had recovered by 1975 were compared with those who remained on the rolls to see if the amount of benefits played a major role in benefit dependency. The data source is the Continuous Disability History Sample (CDHS) file, which is based on program records.

Few of the 413,000 workers in the sample who were awarded benefits in 1972 left the rolls because of recovery. Five years after coming on the rolls about 7 percent had left. Approximately 42 percent were continuing to receive disabled workers' benefits, and the balance had either died or attained age 65.

Treitel examines the demographic, disability, and benefit characteristics of those who left the rolls due to recovery and those who stayed on them. Some of the complicated statistical evidence is summarized in Chart 1.

The significant variables associated with recovery are age, sex, number of dependent children, primary diagnosis, education, mobility, region, predisability earnings, level of benefit and earnings replacement. Not associated with the recovery rate were marital status, race, and occupation.

There are few surprises in the chart. Significantly, more younger workers recovered than did older ones; men more than women; and those with more dependents. Diagnosis also had significant impact on recovery rates. Workers' with episodes of mental illnesses have higher recovery rates than those with chronic diseases related to aging. Those with infectious diseases, fractures, and tuberculoses have higher recovery rates; whereas, those with osteoarthritis, emphysema, and neoplasms have a lower recovery rate.

Education operates in the expected direction; those with higher education, and hence greater investment in human capital, show higher recovery rates than those with less schooling.

The mobility factor may well be one which can be explained only in connection with the diagnosis. Apparently, those in treatment facilities at the time of application recovered at a higher rate than those with no limitations on

ambulation. There are regional differences that may be associated with a number of factors including administrative differences in determinations. As far as predisability earnings are concerned, people with high earnings tended to recover faster than those with lower earnings. That is not surprising in light of the fact that higher predisability earnings would be associated with greater investments in human capital i.e. education and/or experience, which enhance the individual's ability to work in spite of a particular physical disability. As far as the level of benefits and earnings replacements are concerned, these are interesting variables because it is only in the further statistical analysis, when other variables are controlled, that higher benefits produce lower recovery rates. The same is true of earnings replacement. With other variables controlled, a higher replacement produced lower recovery rates.

The data on the relationship between recovery rates and benefit levels can be explored further. In one sense, those with the highest benefits should have the lowest recovery experience. The data in the study, however, show higher recovery rates for those with the highest benefits. About 10 percent of all disabled workers with family benefits of $300 or more recovered compared with only about 5 percent of those with benefits less than $250 a month.

In order to explore that further, data were obtained on the characteristics of working-age survivors with higher benefits, that is $300 a month or more, and on the characteristics of those with lower benefits. As it turns out, most of the higher benefit people were males, with dependent children. Many were much younger than workers with lower benefit amounts. When variables are standardized, little difference is apparent in the recovery experience of those with higher and lower benefit levels.

Treitel maintains that for most disabled workers whose claims were allowed because they were unable to work, recovery is not possible. Program incentives to foster recovery are likely to have little effect for these people. Because of their older age, chronic nature of diseases relating to aging, and high mortality, few may have the physiological capacity to improve medically or return to work.

In order to find out what factors were related to recovery among subgroups of workers who had greater and lesser rates of recovery and to determine the magnitude of any observable disincentive effect relating to the benefit level, a variable interaction technique was employed. This is the so-called automatic interaction detector program, or AID 3. Essentially this involves repeated analysis of variance in which the importance of variables in accounting for the greatest variance "between sums of squares" and "total sums of squares" is distinguished (Sonquist, Baker, and Morgan, 1971).

As Treitel notes, the technique is used here with program data and does not derive from any complex interview or experimental study which might be needed to differentiate the motivation and behavior among beneficiaries. This statistical analysis, employed to find any apparent differences in terms of benefit levels and earnings replacements between those who recovered and those who did not, is a substitute for such complex detailed surveys or experiments. It is not possible to determine from these data the direct effect of receipt of benefits on incentives to remain on the rolls.

A smaller sample was drawn from persons whose claims were allowed in 1972. It consisted of all those who were in recovery status in 1975, and an equivalent number of persons randomly drawn from those who remained on

the disability rolls. People who left the rolls through death or retirement were excluded.

The measure of earnings replacement used was the ratio of the total annual benefit amount initially awarded to the earnings in the highest year before the year of the award. Other variables used were those shown in Chart 1.

Because age had such a striking and consistent effect, the sample is subdivided into disabled persons under age 50, 15 percent of whom recovered, and those aged 50 and over, only 3 percent of whom recovered. For younger workers, the first split selected was for disabling conditions. The recovery rates were 20 percent or higher for those with injuries musculoskeletal diseases, infective and parasitic diseases, and digestive orders. For those with all other diagnoses, the recovery rate was only 7 percent. The split into these diagnostic groups accounted for about 5.6 percent of the total variance, compared with about 1 percent or less for the best split of any other variable including benefit amount and earnings replacement.

The diagnostic group with the highest recovery rate was split again, according to diagnosis, into (1): the highest recovery group, those with infective and parasitic diseases, 35 percent of whom recovered, and (2): the group whose recovery experience was not so high, those with musculoskeletal and digestive disorders, 24 percent of whom recovered. The subsequent diagnostic split accounted for an additional 0.6 percent of the variance.

As shown in Table 9, the earnings replacement variable accounts for more of the remaining variance in recovery than any other variable (0.6 percent of the Total Sum of Squares). Looking at the 16,467 disabled due to injuries and infective and parasitic disorders, they can be classified or further split into those with earnings replacement rates under 75 percent (9,709 workers) and those with 75 percent or more (6,758 workers). Among those with the lesser earnings replacement rates, 41.2 percent recovered, as opposed to 25 percent of those with the higher rates. As Treitel puts it, "Thus it appears that some workers with the highest benefit-replacement rate and the greatest potential for medical improvement may have exercised some control over their medical history to remain on the rolls." He notes a similar effect among those having conditions with the next highest recovery potential, a group of 15,877 younger workers with injuries and infective and parasitic disorders. The difference in recovery proportions, however, is not as pronounced as for the group with the infective and parasitic diseases and injuries. Hence, although earnings replacement accounted for more of the variance in recovery than did any other variable, it did not explain a great deal of the overall variance.

Treitel's study is well worth noting in detail. He summarizes by noting that most disabled worker beneficiaries do not and cannot recover because they suffer from the debilitating effects of chronic conditions related to age and the severity of medical problems. Often their fate is an early death, as indicated by the high death rates among beneficiaries. At the same time, he notes that for some of the younger beneficiaries with medical conditions that offer the greatest potential for improvement, a higher level of earnings replacement appears to result in a disincentive to recover.

The Treitel study is excellent for several reasons. First of all it is based upon available program data. That has drawbacks from the point of view of thorough analysis and these drawbacks are pointed out. At the same time,

it has the advantage of working with available data and the analysis does not require extensive new surveys or costly experiments. Second, an attempt is made to control for the relevant variables. It will not do to say that benefit replacement rates have one effect or another effect, without controlling for the relevant variables. Of course, reasonable people can differ as to what these relevant variables are and how they can be controlled, but Treitel's study makes an attempt to control for them.

The findings are not dramatic but they are significant. They show that there are no quick answers to the problem. For those beneficiaries who are aged, who have particular chronic diseases, and lower education, the likelihood of their recovery is not great. However, the findings also point out that for some workers there may be a disincentive effect. It may well be that these are the workers for whom revisions in the program ought to be directed.

In Chapter V, we turn to an examination of some of the proposed solutions.

Chart I
Relation of Variables to Recovery by 1975 for Working-Age Survivors with Disability Allowances in 1972

Variable	Recovery experience and characteristics of survivors[1]		Independent statistical effect on recovery found in logit analysis
	Associated with difference in recovery rate		
	Higher Recovery Rate	**Lower Recovery Rate**	
Age	Younger. 23 percent under age 40 recovered.	Older. 4 percent or less of those aged 50 or over recovered.	Significant Difference (r = 17.37)
Sex	Male. 10 percent of the men recovered.	Female. 6 percent of the women recovered.	Significant Difference (r = 4.20)
Number of dependent children ...	With more dependents. 14 percent with 3 or more children recovered. (The recovered were younger workers, with no difference by marital status.)	With fewer dependents. 6 percent with no dependents recovered. (Many of the recovered were the oldest workers.)	Significant Difference (r = 3.62)
Primary diagnosis ..	With injuries, infective diseases, and mental illness. Recovery rates: Fractures, 33 percent; disc displacement, 16 percent; tuberculosis, 34 percent; schizophrenia, 8 percent; statutory blindness, 10 percent.	With chronic diseases related to aging. Recovery rates: Heart disease or osteoarthritis, 3 percent; emphysema, less than 1 percent; neoplasms, 1 percent.	Significant Difference (r = 11.57)
Education	With more schooling. 9 percent with more than high school recovered	With less schooling. 4 percent with less than 9 years of school recovered.	Significant Difference (r = 4.86)
Mobility ...	In treatment facility at time of application. 9 percent in a hospital or institution recovered.	With no limitation on ambulation. 5 percent recovered.	Significant Difference (r = 3.35)
SSA region	In Western State. Recovery rates: San Francisco or Seattle region, 8 percent.	In Southern or Eastern State. Recovery rates: Atlanta, New York and Philadelphia regions, 5 percent; Puerto Rico, 2 percent; Florida, Arkansas Virginia, and West Virginia, 4 percent.	Significant Difference (r = 3.88)
Predisability earnings ...	Higher earnings. 10 percent of those with annual earnings of $6,000 or more recovered.	Lower earnings. 6 percent of those with little earnings before onset of disability recovered.	Significant Difference (r = 7.36)
Level of benefit	Higher amount. 10 percent with benefits of $300 or more recovered, but in logit analysis, with other variables controlled, higher benefits produced lower recovery rate.	Lower amount. 5 percent with benefits less than $250 recovered.	Significant Difference (r = 3.48)
Earnings replacement	Higher replacement. 10 percent of those with replacement of 100 percent or more recovered, but in logit analysis, with other variables controlled, higher replacement produced lower recovery rate.	Lower replacement. 7 percent of those with 25-74 percent replacement recovered.	Significant Difference (r = 4.91)
	Associated with difference in recovery rate		
Marital status	Among married or single workers, 8 percent recovered.		No Significant Difference (r = 0.10)
Race	Among black or white workers, 8 percent recovered.		No Significant Difference (r = 0.14)
Occupation	In small group with white-collar positions (professional, technical, and managerial) 12 percent recovered; 6-9 percent of the blue-collar workers recovered. In logit analysis, little differences in recovery rates found among most occupational categories and no statistically significant differences by occupation.		No Significant Difference (r = 1.09)

Source: Treitel, Ralph, "Recovery of Disabled Beneficiaries: A 1975 Follow-Up Study of 1972 Allowances," *Social Security Bulletin*, Vol. 42, No. 4. April, 1979.

Table 9

Percent of Recovery Variance Explained by Demographic, Disability, and Benefit Characteristics of Workers with Disability Allowances in 1972

Characteristic	Survivors		Percent of recovery variance[1]			
	Number	Percent recovered	Age[2]	Sex	Race	Marital status
Total workers[4]	259,435	7.3	4.6	0.4	0	0
Age split:						
Under 50	90,703	14.9	.....	.3	.1	.1
Diagnosis split[5]						
Injuries and infective and parasitic disorders	16,467	34.7	.....	0	.1	.1
Earnings replacement (percent) split:						
Under 75	9,709	41.2	.....	0	0	.1
75 or more	6,758	25.4	.....	0	0	0
Musculoskeletal and digestive system	15,877	23.7	.....	.2	0	0
Other	58,359	7.1	.....	0	0	.1
50 and over	168,732	3.2	.....	0	0	0

[1]Proportion of "total sum of squares" (TSS) of recovery outcome explained by "between sum of squares" (BSS) of best dichotomous split of classification of each variable, according to the automatic interaction detector program.

[2]First split forced by age, but diagnostic group produced the greatest variation in recovery among the total population.

[3]Ratio of annual amount of benefits to predisability average earnings in 1967-71 (data for "monthly benefit amount" times 12 to "predisability earnings").

[4]Further split by occupation of the 9,709 workers with replacement less than 75 percent would produce additional variation of 0.5 percent.

Table 9 Continued

explained by characteristic[1]								
Number of Dependents	Education	Occupation	Previous earnings	Region of residence	Diagnostic group	Mobility status	Benefit amount	Earnings replacement[3]
0.5	0.9	0.6	0.4	0.2	5.4	1.0	0.7	0.3
.1	.5	.5	.8	.3	5.6	.5	.3	.6
.1	0	.6	.4	.3	0	.1	.1	.6
0	.2	.5	.2	.4	0	.1	.1	0
0	0	.1	.2	.1	0	.1	.1	.2
0	.1	.1	.2	.2	0	.2	.1	.3
.1	.2	.1	.1	.1	.1	.1	.1	.1
0	.1	.1	.1	0	.4	.2	.1	0

[5]Workers with allowances in 1972 who recovered or remained on rolls at end of 1975. Excludes workers with allowances who died or reached retirement age by 1975; also excludes those with benefit amount unknown.

[6]Two successive splits among diagnostic combinations were made. The younger-worker group was first split into two groups: (1) injuries and infective and parasitic disorders and musculoskeletal disorders and (2) all other disorders; this split accounted for 5.4 percent of the variance. The younger group was split again by diagnosis into (1) injuries and infective and parasitic disorders and (2) musculoskeletal and digestive disorders; this split accounted for 0.6 percent of the variance.

Source: Treitel, Ralph, "Recovery of Disabled Beneficiaries: a 1975 Follow-Up Study of 1972 Allowances," *Social Security Bulletin*, Vol. 42, No. 4. April, 1979.

Chapter V

Solutions to Disincentives

Introduction

Our task in this chapter is to identify and evaluate some of the proposed solutions to overcome the disincentives to the rehabilitation of disabled persons.

Before examining these solutions, we summarize in broad compass and with all the attendant risks of oversimplification, what we think we have learned about the disincentive problem thus far.

We know that there is a vast array of benefit programs to which a person who becomes impaired or functionally limited and who has difficulty in performing his job can apply. Quantitatively, the important programs are the Social Security Disability Insurance program, the Supplemental Security Income program, Medicare, Medicaid and food stamps. For any given individual, any one of the other programs which provide education, health, rent subsidy, school lunches or social services might also prove a significant source of income.

The work disincentive arises because an individual may recognize an economic advantage by receiving benefits from any one or a combination of these programs. The individual combination of such factors as age, educational level, specific functional limitations and motivation may also influence the decision to remain on the benefit rolls.

We know that there are institutional arrangements for referral of clients to the rehabilitation program and problems involved in the selection of potential rehabilitants. Changes in the VR program direction and mandate which define success in terms of return to the labor market complicate matters further and enhance the significance of closures which result in beneficiary termination from the rolls.

The evidence from the Treitel study, from the various examinations of the BRP program and other data indicate that not all disabled persons are good candidates for vocational rehabilitation. Obviously, those in the prime age groups whose disabilities are less severe and for whom there appears to be a reasonable expectation of eventual recovery are the best candidates for rehabilitation. Perhaps it is sufficient to note that a distinction can be made between those beneficiaries who can be successfully rehabilitated and those who cannot. One can assume that a rehabilitation program should be designed to identify potentially successful clients admitting them to a special program and which would give them whatever attention and treatment is needed to restore them to the labor market.

To what extent then can we identify needed changes in the programs so as to diminish the disincentive effects without interfering so much with the equity conditions so as to make these changes politically unfeasible? We will examine each of these proposals for changes in the benefit programs.

Benefit Programs

Trial Work Period

The original trial work provision applied only to persons who returned to work pursuant to a state approved vocational rehabilitation plan. In 1960, the law was amended to extend the provision to all medically disabled beneficiaries. The change was intended to provide an incentive to greater rehabilitation efforts among beneficiaries. The trial work period originally applied only to DI beneficiaries but was extended to SSI recipients when Title XVI was enacted.

The idea is to allow people to try their ability to work in the labor market without penalizing them for making the attempt. Consequently, they are allowed a nine month trial work period (not necessarily consecutive) during which time they receive all benefits. Actually, due to delays in cutting off benefits, the trial work period extends to 12 months.[6]

Although a beneficiary may earn an amount up to the level defined as substantial gainful activity without losing that month's benefits, a month at trial work is defined as one in which earnings total $50 or more (to be increased to $70). As noted above, SSI disability recipients are also eligible for the trial work period. They are still subject to the SSI income and resources test during the trial work period. Thus they may be judged ineligible because of excess income, even though they are not judged "not disabled" until the trial work period is completed.

Various proposals have been made to extend the trial work period from 12 months for DI recipients to 24 months, without benefits being paid during the second 12 months. However, if the individual does return to the program, eligibility for DI and Medicare would be retained without any reapplication process.[6]

A proposal has also been made to extend the trial work period to disabled widows and widowers in the same manner as provided for disabled workers.

In essence, an individual's status as a disabled individual would be extended for 12 months after the month in which the disability benefits are terminated. But as long as he continues to earn an amount greater than that defined by substantial gainful activity, he would not receive benefits. He would, however, be allowed to return to benefit status without having to reestablish the fact that he is disabled.

Medicare Eligibility

A closely related proposed change is to allow disabled workers to continue to be eligible for Medicare for two years after leaving the DI rolls. With a one-year extension of the trial work period, Medicare eligibility could continue three years after an individual returns to work. For individuals who completed the trial work period who had not medically recovered, Medicare coverage could continue for that additional 24 months or until the person medically recovers.

The proposed amendments are intended to apply only to those whose disability has not been determined to have ceased prior to enactment. Further, any one who qualifies for Medicare and is forced to return to DI within a five-year period could qualify for Medicare immediately, rather than waiting for two years as is required under the current law.

Previously, accumulated credit toward medicare eligibility would be applicable to a future two year waiting period for individuals who must return to the DI rolls within less than five years from cessation of benefits.

The Congressional Budget Office estimates that these proposals will have minor financial impact on the

program. They estimate that less than 20,000 workers would be affected by the trial work period provision. However, they estimate that the cost of Medicare might be much more substantial, possibly $18 million in fiscal year 1980 and $120 million in fiscal year 1984 (Korbel, 1979).

SGA Levels

As indicated above, the SGA level which started out at $100 per month in 1961 has increased gradually until it has reached $280 per month in 1979. These increases in the SGA level, although substantial, have not kept pace with the level of average benefits, nor with the earnings level for the retirement test under the old age Social Security program.

In discussing the BRP (Chapter IV) we noted that raising the SGA level may result in an actual increase in the number of beneficiaries, or at least a decrease in the number of terminations. At the same time, an increase in the SGA level will allow more people to gain work experience and to test the labor market without fear of loss of their benefits.

The proposed Disability Insurance amendments of 1979, HR 3236, would not change the level of SGA or the level of earnings by which a trial work period is counted, but would recognize that workers with severe functional disabilities have costs such as attendant care, medical devices and equipment which are not faced by the ordinary nonlimited worker in the labor market. Under the proposal, these extraordinary expenses may be deducted from earnings in determining the substantial gainful activity levels. The feeling is that such a provision would encourage severely disabled individuals to enter the labor market and to leave the program. HEW estimates that the provision would save one million dollars in fiscal year 1980 and $10 million in fiscal year 1984.

The obvious difficulty with such a provision is in defining exactly what those expenses would be. In this connection it is worthwhile to note that under the provisions of H.R. 3236, Section 223 (D) 4 the Social Security Act is amended by inserting a new sentence as follows:

In determining whether an individual is able to engage in substantial gainful activity by reason of his earnings, where his disability is sufficiently severe to result in a functional limitation requiring assistance in order for him to work, there shall be excluded from such earnings and amount equal to the cost (to the individual) of any attendant care services, medical devices, equipment, prostheses, and similar items and services (not including routine drugs or routine medical services unless such drugs or services are necessary for the control of the disabling condition) which are necessary for that purpose, whether or not such assistance is also needed to enable him to carry out his normal daily functions.

That provision marks an important new step in the recognition that disabled or functionally limited persons may have extraordinary expenses involved in going to work. At the same time it is obvious that a good deal needs to be done to refine these provisions. Rules and regulations, court interpretations and administrative interpretations will be necessary before that section has any real meaning. Nonetheless, it does serve to overcome one important disincentive. An individual will be able to earn up to the level set to determine substantial gainful activity plus whatever the cost to him of these extraordinary medical and attendant care expenses.

Cap on Benefits

In order to understand some of the proposals for placing a ceiling on the maximum family benefits, or the benefits for disabled younger workers, we review briefly how these benefits are determined.

Under the DI program, any worker who is fully "insured" under the Social Security System and has recent work experience qualifies for cash benefits, if he meets the definitions of disability and has withdrawn from the labor force.

The concept of being "fully insured" is based on quarters of coverage. Beginning with 1978, each $250 in annual earnings is considered "a quarter of coverage," to a maximum of four quarters per calendar year. Thus an employee with $500 annual earnings would have two quarters of coverage, and with $1,000 of earnings or more would have four quarters of coverage for that calendar year.

Any worker who has at least one quarter of coverage for each calendar year between 1950, or the year in which he reached 21, whichever is later, and the calendar year in which he becomes disabled is fully insured.

Insofar as being "recently covered" is concerned, the fully insured worker, 31 years of age or older, must have recent labor force experience as demonstrated by at least twenty quarters of coverage during the preceding forty quarter period which ends with the onset of disability. A younger worker must have coverage of at least half, or a minimum of six of the quarters, whichever is larger, between age 21 and the quarter in which he or she becomes disabled.

The disabled worker qualifies for benefit payments after a waiting period of five full consecutive months after onset of disability.

The benefits for the worker under DI may be based on fewer years of actual work experience than the worker who qualifies for retirement benefits. The primary insurance amount (PIA) is calculated as a percentage of the worker's average monthly earnings while working. Prior to 1977, the PIA was based on average monthly earnings unindexed; thus, the old law favored younger workers with shorter work histories whose recent earnings were high relative to workers seeking retirement benefits whose PIA was calculated taking into account past periods when earnings were low. Under the 1977 amendments, the past earnings are indexed to reflect the general growth in wages between the time when they were earned and the onset of disability.

As with the retirement calculations, any past five years with the lowest earnings can be dropped, providing at least two years remain for calculating the average indexed monthly earnings (AIME). The average indexed monthly earnings are based not on actual earnings, but on earnings that are subject to the Social Security tax. Once the average indexed monthly earning figure is established, the PIA is based on 90 percent of the first $180 of AIME or $162 and 32 percent of the next $905 of AIME or $102 and 15 percent of any additional AIME. Thus a worker with an AIME of $500 per month would qualify for a primary insurance amount of 53 percent of that amount or $264. The basic benefit would be automatically adjusted on an annual basis for changes in the cost of living.

Under the 1977 amendments, that wage replacement rate, the ratio of the PIA to AIME, is adjusted according to growth in average wages. Should wages increase, by say 5 percent, a worker with an AIME not of $500 per month but of $525 per month should receive an increase in the PIA of a comparable 5 percent, thus maintaining the relationship of the PIA to the

AIME of 53 percent.

Family benefits are provided for each eligible spouse or child equal to 50 percent of the disabled worker's PIA, with a maximum family benefit (MFB) ranging between 150 and 190 percent of the disabled worker's basic benefit.

Hence under current law the worker's benefit, plus the benefits for dependents can result in total family benefits which exceed earnings before the worker became disabled.

Based on the notion that higher replacement rates constitute a major disincentive to disabled people returning to the labor force, the subcommittee bill H.R. 3236 limits total DI family benefits to the smaller of 80 percent of the worker's AIME, or 150 percent of the worker's PIA. No family benefit would be reduced below 100 percent of the worker's primary benefit, and the limitation would be effective only for entitlements on and after January 1, 1980.

The subcommittee report estimates that 70 percent of the people coming on the rolls do not have eligible dependents and thus would not be affected by a cap on family benefits.

The purpose of the cap on the family benefits is to make beneficiary motivation towards vocational rehabilitation more positive. The subcommittee admits that when the Social Security benefit structure and formula are examined in a comprehensive way in the near future, other approaches might be found preferable for the long term:

such as a separate disability benefit formula, revised family maximum for all or individual programs (disability, retirement, survivors) or non-wage related dependents' benefit (Subcommittee on Social Security of the Committee on Ways and Means, 1979).

An analysis of the disincentive effects on replacement rates probably should be couched in terms of a "disposable income" replacement rates.

Korbel has analyzed this problem (Korbel, 1979). In Korbel's view there are difficulties involved in measuring the disposable income replacement rate. The definition of disposable income varies; the question is whether family resources ought to be included and the period over which resources are to be counted. The type of family unit is also important, the number of members and the presence or absence of spouses and the number of wage earners in the unit. Disposable income is generally considered to be family income after taxes and work expenses. Social Security benefits are not taxable and these tax effects are especially important for two-earner families in which one worker becomes disabled. Work expenses are also important, especially when child care expenses are included, and some of these may be eliminated when a working family member becomes disabled.

There is also the problem of the period of time over which the predisability earnings should be measured, and whether replacement rates should be based on a definition of income that includes major sources of private and public income, especially welfare benefits such as AFDC, SSI and food stamps, available to some families both before and after disablement.

Table 10, reproduced here, shows the results of one study of replacement rates using after-tax income for the year preceding the onset of disability with a deduction of work expenses equal to 6 percent of gross income. The second column shows the administration proposal which places a limit on maximum family benefits at 80 percent of AIME or the worker's own benefit, whichever is higher. (H.R. 3236 limits family benefits to 80 percent and H.R. 2054 limits them to 75 percent of

AIME or the worker's own benefit, whichever is smaller).

As can be seen from Table 10, disposable income replacement rates are generally higher for multiple earner families with several dependents as compared to single earner families without dependents. They are higher for families with low earnings compared to those higher on the income scale.

Korbel notes that the magnitudes differ, but the general outcomes under both reform proposals are similar. Many disabled worker families would receive postdisability incomes roughly equal to or exceeding their incomes while working.

One of the main reasons is the favorable tax treatment of Social Security benefits. Also, at the lower end of the income distribution, needy disabled workers may also qualify for SSI and their dependents may qualify for AFDC; the family may receive food stamps or any one of a number of other types of benefits.

The complexity of this whole problem arises from the multiplicity of benefit programs and the interrelationships among them. The low income families, those with earnings below $4,000.00 per year, would experience an 18 percent reduction in disposable income replacement rates under the administration plan, and 23 percent with H.R. 2054. However, Korbel notes that for some families, AFDC and SSI generally provide a dollar-for-dollar replacement of DI benefits lost; and therefore, low income families who qualify for such programs would experience no reduction in their post-reform disposable income replacement rates. Thus, in most cases, disposable income replacement rates would continue to exceed the 75 percent level which some observers contend would continue to produce a strong financial disincentive to work: *Furthermore with the potential tax and transfer offsets some of the savings anticipated by the family cap provision may in fact not be realized.*

Reduction in Number of Drop-Out Years

The basic formula for the computation of DI benefits is borrowed from the Social Security retirement provisions. In that program, it was thought equitable to allow the drop out of some years of earnings over the longer years of a worker's wage history. There will be some years, especially in the beginning of one's work career, when earnings do not reflect normal, average, or potential earnings. These may be periods during which the worker is engaged in on-the-job training and accumulating experience, or other forms of human capital endowments. For that reason, the law provided that five years of earnings could be dropped in computing the average monthly earnings used to compute benefits.

Disabled workers, of course, can be disabled at any time during their work career, and allowing younger workers to drop out five years enables them to disregard a greater proportion of their earnings history and base their benefits on more recent earnings. The 1977 amendments ameliorate some of this possible inequity by wage indexing.

H.R. 3236 would go further and would vary drop-out years by age for disability entitlements after 1979. There would be no drop-out years allowed under age 27, and the number of drop-out years would gradually rise to the five provided in existing law for workers aged 47 and over. However, if a worker provided principal care for a child under age six for more than six months in any calendar year, the number of drop-out years would be increased by one for each such year, not to exceed five years. The effect of this change would be dependent on the particular worker's wage history. Under a similar adminstration proposal,

Table 10

Disposable Income a/ Replacement Rates for Selected Family Types at Various Levels of 1978 Earnings Under Different Proposals for the Cap on Maximum Family Benefits

	Disposable Income Replacement Rates		
	Current Law	Administration Proposal	H.R. 2084
Two Earner Family With Each Earning $12,000:			
Two Children	108	108	99
One Child	101	101	101
No Child	86	85	86
One Earner Family With Earnings of $12,000:			
Two Children	107	107	91
Spouse and One Child	94	94	80
Spouse Only	54	54	54
Alone	58	58	58
	Including Welfare Benefits b/		
One Earner With Spouse And Child With Earnings Of:			
$ 2,000	177	177	177
4,000	124	124	124
6,000	94	89	86
8,000	101	95	89
10,000	100	97	82
	Excluding Welfare Benefits b/		
One Earner With Spouse And Child With Earnings Of:			
$ 4,000	96	79	74
6,000	93	85	80
8,000	101	93	84
10,000	100	97	82
12,000	94	94	80
14,000	91	91	78
16,000	95	85	73

Source: Wendell Primus, "An Analysis of Caps on Disability Benefits Under Various Proposals," Committee on Ways and Means, March 1, 1979 (unpublished).

a/ Disposable income takes into account Federal Personal income and payroll taxes, state income taxes for the state of Virginia, and work expenses at six percent of gross income.

b/ Welfare benefits include AFDC, SSI, and Food Stamps.

DHEW estimates savings of $19 million in fiscal year 1980 and $191 million in fiscal year 1984 with some offsetting increases in welfare outlays as a result of the drop-out year provisions.

Administration of the DI Benefit Program

The Bureau of Disability Insurance (BDI) in the SSA is responsible for administering the DI program, but it makes contractual arrangements with each state to administer disability determinations. The SSA establishes uniform standards for these disabilty determination units, and it finances the units with revenues from the trust fund.

It is the state disability determinations unit (DDS) that must decide whether an applicant meets the definition of disability under the federal guidelines. The applicant must furnish medical evidence supporting his claim and if that evidence is not sufficient, a consultative examination may be ordered at government expense to obtain the necessary evidence. At some point a determination is made, either an allowance or a denial. Prior to 1972, the federal BDI reviewed all, or most, of the state decisions before any benefit or denial was allowed. Budget pressures in 1971-1972 to reduce federal staffing forced the BDI to take administrative steps which changed what had been about an 80 percent review of the state agencies' disabilities allowances prior to their making awards (preadjudicated) to a sample review involving only 5 percent of the state cases after the awards were made (postadjudicated). These changes in review procedures may have contributed to the higher incidence rate since 1972, and the percent of state allowances returned by the BDI grew from 5.8 percent in 1966 to 7.3 percent in 1972. At the same time, denials returned to states declined from 8.3 percent in 1966 to 2.6 percent in 1972.[5] With the sample review, the trends have remained about the same as with a 100 percent preadjudicative review. The trend has been towards a growing proportion of state allowances returned to the states for reconsideration. In 1977, 79 percent of the sample cases reviewed were initial allowances returned to state agencies for reconsideration. Although the trends are the same, the cases have been limited to the 5 percent sample.

The provisions in H.R. 3236 would phase in, over a three year period, beginning in fiscal year 1980, increased federal review on a preadjudicated basis. Under that same Section VIII of the bill, the Secretary of DHEW is given the power to enforce performance standards in administrative requirements and to audit the state agencies' role in the disability determination process.

The bill also requires the Secretary to review at least 30 percent of all determinations made by the state agencies in fiscal year 1980, 60 percent in 1981 and at least 80 percent in any fiscal year after fiscal 1981.

Disability determination is essentially the determination that the individual is unable to engage in any substantial gainful activity because of a medically determinable physical or mental impairment. Different rules apply to blind individuals 55 years of age or over. Disability is defined as inability, because of the blindness, to engage in substantial gainful activities that require skills or abilities comparable to those previously performed with some regularity and over a substantial period of time. For the nonblind, disabled individual, the impairment(s) must be expected to last at least 12 months, be so severe that the individual is unable to do his or her previous work and, considering age, education, and work experience, be unable to engage in any other substantial gainful activity which exists in the national economy.

The regulations contain a listing of the impairments which, when supported by medical evidence, qualify the individual for benefits assuming that the SGA test is met. The SGA dollar limit is higher for a worker who is blind. Those medical impairments not in the listing, considered in conjunction with the worker's age, education, training or work experience, may also qualify a person for benefits, again assuming that the SGA test is met.

Survivors of workers who received DI benefits retain their eligibility for survivor benefits under the Social Security program. Also widows, surviving divorced wives and widowers qualify for benefits if they are 60 years of age or older, or between 50 and 60, and are considered disabled. That definition of disability for them is stricter than for the insured worker in that they must have physical or mental disabilities so severe that they are unable to engage in any gainful activity (it need not be substantial). Also a child of an insured retired, disabled or deceased worker may qualify if he is disabled before age 22 with an identical definition as for disabled workers.

Certain of the cases that are allowed are "diaried." This is done in cases of recipients whose medical impairments fall into 13 special categories and those cases are reviewed periodically to see whether medical improvement has occurred. As part of the BDI's continuing disability investigation approximately 150,000 diaried cases are reviewed each year. However, the number reviewed has declined from 9.8 percent in fiscal 1973 to 6.8 percent in fiscal 1976, a 31 percent reduction. Until recently, Korbel points out that cessation of benefits of diaried cases required clear evidence of medical improvement even if the initial allowances were considered marginal or in error. (This is the so-called Labonte principle based on an administrative law judge's decision), (Disability Program Analysis Group, 1977). Korbel maintains that recent policy has indicated a tougher medical review in such redetermination cases and since 1977 there has been a substantial increase in reviews for the diaried cases that had a high probability of recovery, 15 percent of all such cases are reviewed and some observers view these reviews as in part responsible for the recent increases in termination rates due to recovery.

Section XVII of the Disability Insurance amendments of 1979, H.R. 3236, provides:

In any case where an individual is or has been determined to be under a disability unless a finding is or has been made that such disability is permanent, the case shall be reviewed by the applicable state agency or the Secretary... for purposes of continuing eligibility, at least once every 3 years.

That review is to be in addition to, and not substitute for, any other review as required.

There is no definition in the law as to what disability is to be considered permanent or nonpermanent. Presumably that continuing review would go beyond the 13 categories set up on the basis of medical listings.

It is difficult to forecast the effects of such review procedures on the incentives or disincentives of the DI recipient. A person knowing that his case is going to be reviewed at the end of the three-year period may attempt to maximize his functional limitations so that he can still qualify for DI benefits. On the other hand, he might be stimulated to undertake some program in anticipation of his no longer being eligible for benefits.

Possibly, there is a more important aspect of all of these administrative changes. To the extent that only those people who are intended to be on the

program are on the program, to that extent, the task of rehabilitation of recipients is probably eased. The most difficult thing must be to rehabilitate to gainful employment somebody who should have been there all along, and who was never entitled to DI benefits in the first place. To the extent that these errors are corrected by appropriate administrative procedures, the task of rehabilitation would be eased and the disincentive problem lessened.

Under H.R. 3236 a demonstration project is authorized to test different methods of treating work activities of disabled workers, such as gradually phasing out benefits under various benefit reduction rate formulae when earnings exceed the SGA levels after a period of trial work. Also, provisions are made for the feasibility of instituting a personal conference in the initial disability determination process prior to issuance of a denial. Also, there are provisions for payment of medical evidence and certain travel expenses which are designed to make the determination process and the gathering of evidence more equitable.

Provision is also made for continuation of DI benefits to people who are in federally approved state rehabilitation program, and for whom the SSA Commissioner believes that the completion of the program will increase the likelihood of permanent removal from the DI rolls. We will have more to say about this in our discussion of vocational rehabilitation.

Improving the Management of the BRP

Improvements in the field of vocational rehabilitation should also contribute to lessening disincentives. Recent changes in the vocational rehabilitation program emphasizing the severely handicapped are tending to diminish the stance of the continued vocational objective. Homemaker status, independent living status, work in a sheltered environment have become alternative rehabilitation goals. Obviously, the more severe the handicap among a given population the less stringent will be the test of success for the rehabilitation administrators.

Nonetheless, the purpose of the allocation of portions of the trust fund to vocational rehabilitation (BRP) is to terminate people who are on the rolls. The idea was that spending trust funds to rehabilitate disabled beneficiaries would result in an eventual savings to the trust fund.

There are various ways in which vocational rehabilitation can be improved, but one difficulty in mandating performance on the part of vocational rehabilitation counselors is that the federal government does not directly control the program. The Rehabilitation Services Administration (RSA) is engaged in a joint federal-state cooperative venture. Although the federal government supplies 80 percent of the funds in the basic program, it has no direct control over the way the programs are administered at the state level. If that is true of the RSA basic program, it is also true of the BRP even though the federal government provides 100 percent of the funds.

There is no central, direct, overall management of the BRP. Any casual investigation of the data supplied indicates gaps in the information. There is no overall case management of the rehabilitation of those peole who are on the DI rolls. The Rutgers study concluded that reforms were needed in the program's management, financing and monitoring. It was recommended that a central unit be established within SSA to be solely responsible for BRP activities and that a management information system be developed to produce ac-

curate data on the program's performance. Such data could then be fed back to the counselor level to improve the efficiency of the selection criteria. The latter point is important because the efficacy of the BRP depends on selecting only those clients who can benefit from rehabilitation services and who show reasonable chances of termination. Enough information is available now to indicate something of the age, the disabling condition and other factors which are correlated with program success. Results from the West Virginia and the Alabama experiments should further increase our knowledge in this area. But something more than knowledge is needed. What is needed is a willingness on the part of the BRP administrators to insist that clients be screened to eliminate those who will terminate without services and to insist that with that group aside, clients be selected who have a reasonable probability of success.

The Rutgers study also recommended a fairly elaborate incentive financing scheme based on savings to the trust fund. The total amount would be allocated among the states based on relative state performance in rehabilitating beneficiaries at wages greater than SGA levels.

That scheme has not found its way into proposed legislation. However, the proposed legislation (H.R. 3236) is also designed to provide incentives for the states and to improve savings to the trust fund. The new proposals would eliminate fixing the amounts for the BRP as a percentage of the previous year's benefit payments. Instead, the states would be paid for costs of rehabilitation for persons who successfully complete the program and who either terminate or meet certain additional requirements. The total of the federal share and twice the state's share of the costs for the rehabilitation of the individual would be paid if that individual returned to substantial gainful activity which lasts for a continuous period of 12 months, or which results in their employment for a continuous period of 12 months in a sheltered workshop.

The Commissioner of Social Security would be authorized to determine whether or not vocational rehabilitation services contributed to the outcome.

Under the same amendments, the Secretary is authorized and directed to study alternative methods of providing and financing costs of vocational rehabilitation services to disabled beneficiaries so that maximum savings will result to the trust fund.

Disincentives in Programs Other Than DI—General Welfare Reform

The disincentive problem which arises in DI and SSI programs is also complicated by the multiplicity of benefit programs. The proposed amendments do not reach this problem. Moreover, the beneficiary is part of a family unit. Some members may be eligible for AFDC or food stamps while the head of the household may be eligible for DI or SSI, based upon his physical or mental impairments. Whatever the aggregate importance of multiple benefits, they may result in real disincentives for the individuals concerned.

One obvious combination that is recognized in the proposed legislation has to do with the disincentives posed by the fact that a person leaving DI may also lose Medicare. In the absence of any national health insurance program, proposals have been made to continue Medicare under the conditions that we have already discussed. But the problems are more complicated and may involve benefits from a wide variety of programs in the public and private

sector. The question arises as to whether any of the schemes for general welfare reform would contribute to a solution to the problem.

Typical of the several proposals for welfare reform is the Program for Better Jobs and Income (PBJI) (Congressional Budget Office, 1978). The program is a work-oriented approach to welfare reform designed to supplement the income of all poor families and to provide work incentives for families in which an adult is expected to work. Under the program, adult recipients would be expected to work, unless they were aged, blind or disabled, or were needed to care for a young child, or an aged, blind or disabled individual. Presumably, it would not bar from work those individuals who receive SSI and who also fall into the category of those persons who could be returned to the labor market, but the program does not meet this issue.

PBJI would replace AFDC,SSI, food stamps and general assistance programs with a universal cash assistance providing a basic federal benefit to all needy persons regardless of where they live. A four-person family with no member expected to work and no income, would receive a maximum yearly benefit of $4,200, in 1978 dollars. States would be encouraged to supplement these benefits through a system of federal matching funds for a portion of the states' supplements.

To encourage work effort the proposal includes a program of job search, subsidized public employment, training opportunities, and an expanded earned income tax credit (EITC). A special public service employment (SPSE) and training program would be available for principal earners in families with children if they cannot find private employment. That program would be designed to provide opportunities that lead to unsubsidized work. EITC would be expanded to provide a 10 percent benefit on earned income up to $4,000 plus a 5 percent benefit on additional earnings up to a maximum amount which would depend on the number of tax exemptions claimed.

Under PBJI, for a four person family with a member expected to work, there would be no reduction in benefits associated with earnings up to $3,800, after which the benefit reduction would be about fifty cents on the dollar.

The maximum amounts payable would differ according to whether the person is expected to work, or not expected to work. For example, a single person who is disabled would receive a maximum payable amount (MPA) of $2,500. That contrasts with an estimated amount of $2,147 which that person would be eligible for as a basic federal SSI benefit in fiscal 1978. With $472 in food stamps, he could receive a total of $2,619. In similar fashion, the couple with a disabled breadwinner would receive $3,750 in contrast to the $3,220 SSI payment and $653 in food stamps for a total $3,897. However, the proposed PBJI amounts are substantially higher for the disabled person than for the nondisabled. The couple with a disabled person would receive $3,750 as an MPA, whereas the childless couple expected to work would receive $2,200. The negative income tax rates also differ according to whether the person is disabled or not. Consequently, although the program abolishes SSI, it does not abolish the need for determining whether a person is disabled or not, and therefore whether the person is expected to work or not.

The person who is classified as disabled gets a more favorable treatment but the difficulty unresolved in the program is, as we well know, that the presence or absence of a disability is sometimes very difficult to determine. As the problem was put in a study

prepared for the Joint Economic Committee, a person would have to go to a doctor to establish that his problem is a disability.

- *However, if the person really does not want to work, he often can arrange to be examined when the problem is most acute so the doctor will observe the disability.*

Noting the increase in the number of people on disability rolls in recent years, it was noted that the PBJI two-tiered system risks creation of a similar epidemic of disability among welfare recipients (Hausman and Friedman, 1977).

The details of such welfare reform proposals may be less important than the basic philosophies involved. One has to be pessimistic about the chances of such proposals contributing a great deal to the solutions of the disincentives problem. By placing disabled persons in a separate category, they may do more to exacerbate the problem than to cure it.

Conclusions

The Same and Yet Different

The problems of disincentives to the rehabilitation of disabled persons are quite real and not imaginary. All of the studies of the general population, whether based upon deductions from theory, empirical analysis, experimental or nonexperimental data show some disincentive effects. There is no reason to expect that the situation is different for those people who are recipients of one or another of the vast array of disability benefits. We do recognize, however, that disabled persons may have additional problems not faced by others.

Persons on disability rolls may have functional limitations which impair their productivity and hence the wage they can command in the labor market. They may also be victims of discrimination in the labor market, and hence receive a lower wage than is justified by their productivity. Also they may have extraordinary medical, occupational, and living expenses. These significant factors do mark the disabled as a group which is apart from the general population.

Selecting Those Who Will Terminate

All of the evidence points to the fact that there is a group of people on disability rolls, although possibly small in number in comparison to the total numbers receiving benefits, who are good candidates for rehabilitation. The disincentive problem exists for them, but not in quite the same way as for the general nonlimited population. One of the priority jobs of the vocational rehabilitation system should be to seek out such candidates, with the goal of rehabilitating them to a job which pays at least as much as their benefit levels.

That may not be an easy task, and it may well interfere with the equity objectives of the individual state vocational rehabilitation programs. Nonetheless, this is the beginning of the solution of the problem of disincentives. It is a question of selection and case management so that individuals who are on beneficiary rolls may look forward to the termination of these benefits and to resumption of jobs in the labor market.

Far But Not Far Enough

Adoption of the proposed amendments to the DI and SSI programs should ease somewhat the problems of disincentives. These include the cap on maximum family benefit levels so they do not exceed 80 percent of the worker's predisability wages, allowing the retention of Medicare for a period of time, easing the return to the rolls once one is off, liberalization and extension of the trial work periods, and improvements in the administration of the DI program. All of these should improve the incentives for rehabilitation, but they do not solve the entire problem.

Not One But Many Programs

The disincentives to rehabilitation are not confined to a single benefit program. Although DI and SSI are quantitatively the important programs, individual beneficiary families can receive benefits from a multiplicity of sources and for a multiplicity of rea-

sons. The current amendments recognize the close relationship between Medicare and DI, but that hardly covers the problem of multiple benefits. It is not only the public sector, but also the private sector programs which may overlap and aggravate the disincentive problem.

Incentives and the Negative Income Tax for the Disabled

One solution lies in the adoption of a general negative income tax program covering the total income of the family. Incentives are provided for people to increase their income through market work. In general, the incentives consist of reducing a tax on additional income so that a person is better off by working than by remaining in benefit status. But the proposed treatment of disabled persons in terms of the negative income tax proposals, is hardly satisfactory. The disabled beneficiary is placed in the category of persons "not expected to work," which flies in the face of all that we have learned about rehabilitation through these many years.

One possible solution is to adopt some variant of the proposal made in regard to SGA levels. The proposal is to deduct from earnings the expenses of a disabled person for attendant care and other medical expenses that are connected with his impairments or functional limitations.

Such an idea could be adopted to the negative income tax schemes. If it were possible to define and measure these costs, then impaired or functionally limited persons could have such charges deducted from their earned income. For example, if the minimum benefit levels for a family of four were set at say $4,000 a year and if the head of the family is impaired and has medical and attendant costs of say $2,000 a year, then the benefit level would be set at $4,000 plus $2,000, or $6,000 a year.

Obviously, many variants of this scheme could be established, each based on the idea that the impaired or functionally limited person has extraordinary expenses which should affect minimum guarantees.

Everything else about the scheme could be left intact. There would be no reason to distinguish among people who are disabled and "not expected to work," and other people in the economy. It would also serve to move away from the concept of disability and get back to the concept of impairment or functional limitations.

The difficulties of distinguishing between the drugs and medical treatment necessary because of a person's impairment for functional limitations and those routine prescriptions which would have been used even if that person did not have an impairment or functional limitation are formidable. But probably such administrative difficulties are less than those posed under the current system. It would not be necessary to be conerned about sources of income for the impaired person. Whether from a benefit program or otherwise, all income would be counted and would figure in the minimum guarantee, the benefit-loss ratio, and the breakeven point. But the political feasibility of enacting such a program becomes more dubious if it includes all benefit sources, whether veterans' programs, private programs, indemnity programs, or any other program where benefits are paid by reason of a particular person's functional limitations.

Managing the BRP

Serious consideration ought to be given to improving the management of the DI and SSI Beneficiary Rehabilitation Program. Both programs should be made cost effective. In the DI program, the BRP should not result in any

net cost to the trust fund. Such goals would focus attention, not on rehabilitations, but on rehabilitations of a particular quality.

In order to be cost effective, the BRP must have strict selection criteria. The purpose of the BRP is to take people off disability rolls. All of the evidence from the Treitel studies and from the Rutgers study indicate that only a selected group of clients have a reasonable probability of making it in rehabilitation. These are the clients that should be selected for services. Obviously, termination is not going to take place unless those persons are rehabilitated to a job which promises reasonable tenure at wages that equal or exceed their benefit levels.

Some states are apparently doing quite well in this regard, and a manager of the program would bring the practices of the best states to bear to improve the poorer states so that all may benefit.

Changing the Basis of Benefits

To touch on the problems of incentives is to touch on the whole problem of disability in our society. If we look for far-reaching fundamental types of reform proposals, there are several to choose from. One would be simply to award benefits in the principal beneficiary programs on the basis of a person's impairment or functional limitations, and not on the basis of lack of earnings in the labor market. Such an idea borrows from the indemnity schemes where a person may be compensated for the physical loss that occurs as a reason of another's negligence, or in workers' compensation by reason of the employment relationship. In many state workers' compensation programs, it is the physical impairment or functional limitations *per se* for which compensation is awarded; although the limitation may be used as a proxy for future wage loss.

The virtue of adopting such a scheme nationally would be that the benefits would be due the person for an impairment or functional limitation. The benefits would be awarded as a matter of right, regardless of earnings or lack of earnings in the labor market.

If earnings then fell below some minimal level, the worker would be entitled to whatever benefits, based upon need, were available, such as SSI, or possibly some type of a negative income tax payment in the future.

A Better Definition of Net Net Income—Deducting Disability Expenses

To allow a person to deduct from his earnings a particular amount which is occasioned by his medical and attendant expenses may not go far enough. The concept of a deduction for medical and attendant care could be extended to pay necessary maintenance expenses and occupational expenses involved in transportation to and from work, and in any adaptations necessary to sustain work at the workplace.

As an example, assume that a person has medical and attendant expenses that amount to $2,500 a year. Assume further that if that person went to work, she/he would have additional expenses that are associated with work (not ordinary and necessary expenses encountered by nonlimited persons) that amount to an additional $1,000 a year. If that person were to go to work, she/he would be allowed to offset from his or her income, not only the $2,500 in the medical and attendant expenses, but an additional $1,000 in work expenses. Such a scheme obviously could work only in connection with some general type of assistance or

negative income tax scheme.

It is not easy to work out a comparable scheme for DI beneficiaries because receipt of benefits in that program is necessarily tied to levels of income from work. DI is an income maintenance program designed to provide people some proportion of their former work income in the event that they become impaired or functionally limited and unable to work. It is not easy to see how that could be transferred to a program in which beneficiaries would be paid for their impairments or functional limitations per se, and where receipt of that benefit would be allowed to continue, regardless of future earning streams. However, the idea is at least worth investigating, even if the payments for impairments or functional limitations were considered as a proxy for future lost income.

There is no well developed philosophical basis for payment for impairments. Such payments could not be considered as indemnity payments unless somehow the impaired person's fate were considered the responsibility of society as a whole. Neither could they easily be justified on some basis of status. Veterans' programs do pay benefits on the basis of impairments or functional limitations. A veteran could receive a service-connected disability payment and still earn whatever he can in the labor market. (One suggested solution to the disability problem is to make everyone an honorary veteran and compensate them accordingly).

For The Here And Now

If we live in a world where no new negative income tax schemes or national health insurance programs are around the corner, we are left with what we have. We have essentially, and of necessity, a fragmentary approach to the problem of disability. We legislate on the basis of individual programs as political consensus develops. In that kind of a world, it would be wise to make the necessary amendments to the DI and Medicare programs and to improve the management of the vocational rehabilitation program, beginning with the selection of clients and ending with the objective of rehabilitating them at wages at which termination is feasible.

More Research Not Necessary

One is tempted to make the radical suggestion that perhaps not a great deal more is needed in the way of further research. Further research may tell us more about the extent of the problem, but it is unlikely to tell us how it can be overcome. The facts are that we know a great deal now about what needs to be done. We probably cannot do a great deal more than the current proposals tinkering with the programs without greatly increasing costs or creating further inequities. The reform proposals that have been made go quite far in such areas as extending Medicare for three years after a person begins to work and in liberalizing SGA and trial work periods. Other needed changes are more general and are designed to improve, not only the disincentive problem, but the general administration of the DI and VR programs.

A Firmer Resolve

Perhaps, when all is said and done, what is needed as much as the technical changes is a general resolve that the rehabilitation of DI and SSI beneficiaries is something that is feasible and something that can be done. Perhaps we need the resolve to select the eligible clients, to manage the programs efficiently, and to define its objectives in straightforward fashion as termination from benefit rolls.

Given the variety of programs available, no individual need be written off and no individual should be considered as a hopeless case. At the same time, given our limited resources, concentration of vocational rehabilitation services on those who can benefit most and who have the most reasonable chance of termination is probably a wise use of these social resources. Given the nature of work, and given the fact that our benefit programs are conditioned upon work, we will never have complete solutions to the disincentive problem. But we do have enough evidence available to make short term reforms which will do much towards easing the problem.

Notes

1. Table 1 indicates that receipt of Medicare funds by aged and disabled persons is not restricted by earnings limits. However, in actuality, Medicare eligibility requirements for disabled persons are predicated on eligibility for DI payments which require recipients to demonstrate lack of substantial gainful activity. Also the table lists Retirement Federal Civil Service and Military Retirement as having no income rules. The Civil Service Disability Retirement provisions do have an earnings test, albeit a most liberal one. To fail the earnings test, the beneficiary's earnings must exceed 80 percent of the current salary of the position for which the beneficiary has been retired for two consecutive calendar years. Actually, one person could earn more than their predisability job paid or an amount equal to current earnings if income is allocated strategically through time. Military retirement on disability, on the other hand, carries with it no income limits (comments of Author).
2. The Gary Experiments were conducted in Indiana between 1971 and 1974. Indiana was chosen because of the absence of an AFDC-UP program (Kehrer, 1979).
3. One of the difficulties with most of the multiple regression work using survey data (the studies referred to in Chapter III) is that they do not reveal much about a person's taste or motivation for work. One of the studies reported in Cain and Watts referred to in Chapter III attempts to measure taste for work by how the individual has accumulated assets in the past. Since West Virginia researchers had the benefit of actual interviews with people, they have attempted to get at the same variable by classifying clients into two groups; those that have external orientation, and those with internal orientation. Of the 304 potential clients, 192 (64 percent) had an external orientation in that they agreed or strongly agreed that:
   . . . a great deal that happened to you is probably just a matter of luck, fate, breaks, or other more powerful people.
   One hundred and six people (36 percent) showed an internal orientation in that they disagreed or strongly disagreed with that statement. Also, using somewhat the same type of psychological instruments, the researchers were able to classify clients into those with high achievement motivations and low achievement motivations. The use to which the information will be put will have to await the publication of the final report.
4. Constant (29.4%) + married (4.9%) + years from onset to closure [3 x (-0.6%)] + months from referral to closure [10 x (-0.1%)] + wage-benefit ratio (1.0 x 10.8%) equals 42%.
5. The early experience in recoveries among disability insurance recipients are probably not too meaningful. It was only in 1960 that the restriction of benefits to persons aged 50 and over, was removed and younger workers were allowed to receive cash benefits. In 1965 the definition of disability was liberalized and allowances were granted

to persons whose condition might improve after 12 months. In 1967, legislation reduced the number of quarters of coverage needed for disability insured status by workers under age 31. In 1972, the initial waiting period was reduced from 6 months to 5 months.

With these liberalizing changes, the proportion of disabled worker beneficiaries dying or attaining retired worker beneficiary status had dropped each year, and the recovery rate per thousand beneficiaries rose from less than 10 in 1960-1961 to more than 30 by 1967. However, as already pointed out, in later years the rated dropped markedly.

6. The law provides that when DI beneficiaries are judged no longer eligible for benefits, they are to receive benefits for the month of cessation, plus the next two months. The 1956 amendments had stipulated that benefits would end with the month preceding the month disability ceases, but that was changed in the 1960 amendments so that benefits are paid for the month of cessation of disability and the next two months. The theory was that a person who recovers may require benefits for a brief interval while becoming self-supporting.

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Reader Response Form

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_____

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_____

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